TIME FOR A CHANGE
SCO Group CEO Darl McBride says he's ready for an end to his company's legal battles. PAGE 6

UNCERTAIN INTENT
Microsoft is coy about its plans for a system that finds Web sites hosting malicious code. PAGE 7

COMPUTERWORLD

THE VOICE OF IT MANAGEMENT WWW.COMPUTERWORLD.COM AUGUST 15, 2005 VOL. 39 NO. 33 $5/COPY

Companies Take Divergent Paths With Mainframe

One IT department embraces it; another decides to abandon it

BY PATRICK THIBODEAU

Baldor Electric Co. and Welch Foods Inc. have much in common. Both are growing, mid-size companies with similar-size IT departments. Each uses packaged ERP applications and is run by IT managers who want complete alignment with the business. But when it comes to the hardware running these systems, the companies are polar opposites.

Fort Smith, Ark.-based Baldor has consolidated its hardware to an IBM z990 running Linux that hosts its SAP ERP applications. The company, which makes electric motors, moved off IBM pSeries servers running AIX and is planning to switch applications on its Intel servers to applications that run on the mainframe, including moving a Windows-based mail server to Lotus Domino.

Welch Foods, a Concord, Mass.-based juice, jam and jelly producer, is moving from a System 390 IBM mainframe as well as an IBM midrange AS/400 (now the iSeries) running a mix of applications to an Oracle ERP system that will run on Intel-based Linux servers.

Mainframe, page 49

Open-Source Virtualization Beckons Users at LinuxWorld

New Xen release draws attention at conference

BY CAROL SLIWA
SAN FRANCISCO

The overflow crowd that packed the opening session on virtualization at the LinuxWorld Conference & Expo here last week showed that the software holds as much allure for open-source devotees as it does for users of Windows servers.

The upcoming 3.0 version of the open-source Xen virtual machine technology — which

LinuxWorld, page 14

ONLINE EXCLUSIVE
QuickLink s1000
www.computerworld.com

New Energy Bill Takes on Cybersecurity

Power company tech units must meet a host of new standards

BY THOMAS HOFFMAN

The new energy bill signed into law by President Bush last week is expected to have a significant impact on IT departments at power companies. IT executives and experts noted that it allows federal enforcement of upcoming cybersecurity standards.

Under the new law, the Federal Energy Regulatory Commission has the authority to establish a national electric reliability organization with the power to oversee and audit reliability standards.

Instead of developing its own standards, the FERC plans to adopt those set by the North American Electric Reli-

Energy Bill, page 49

NEWSPAPER

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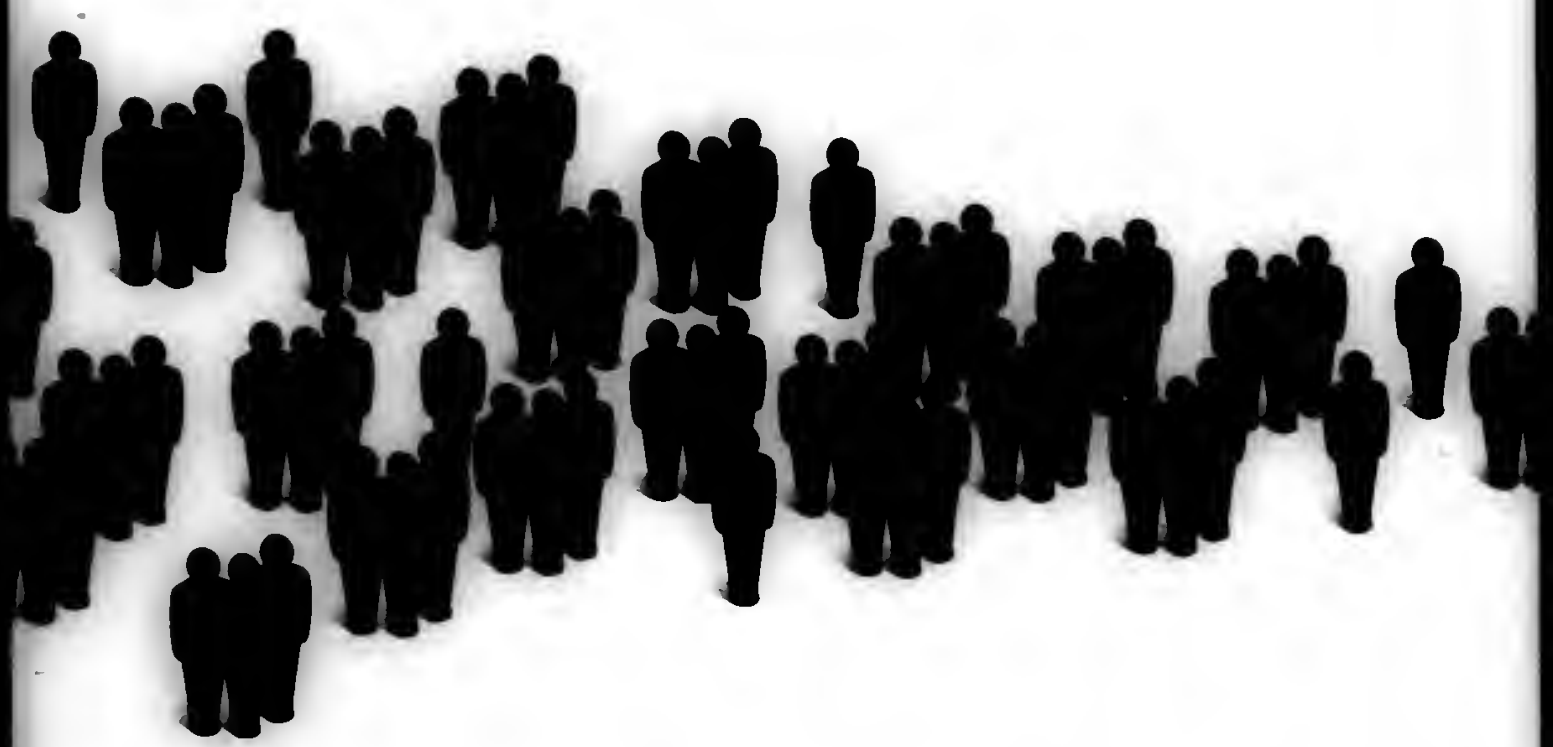

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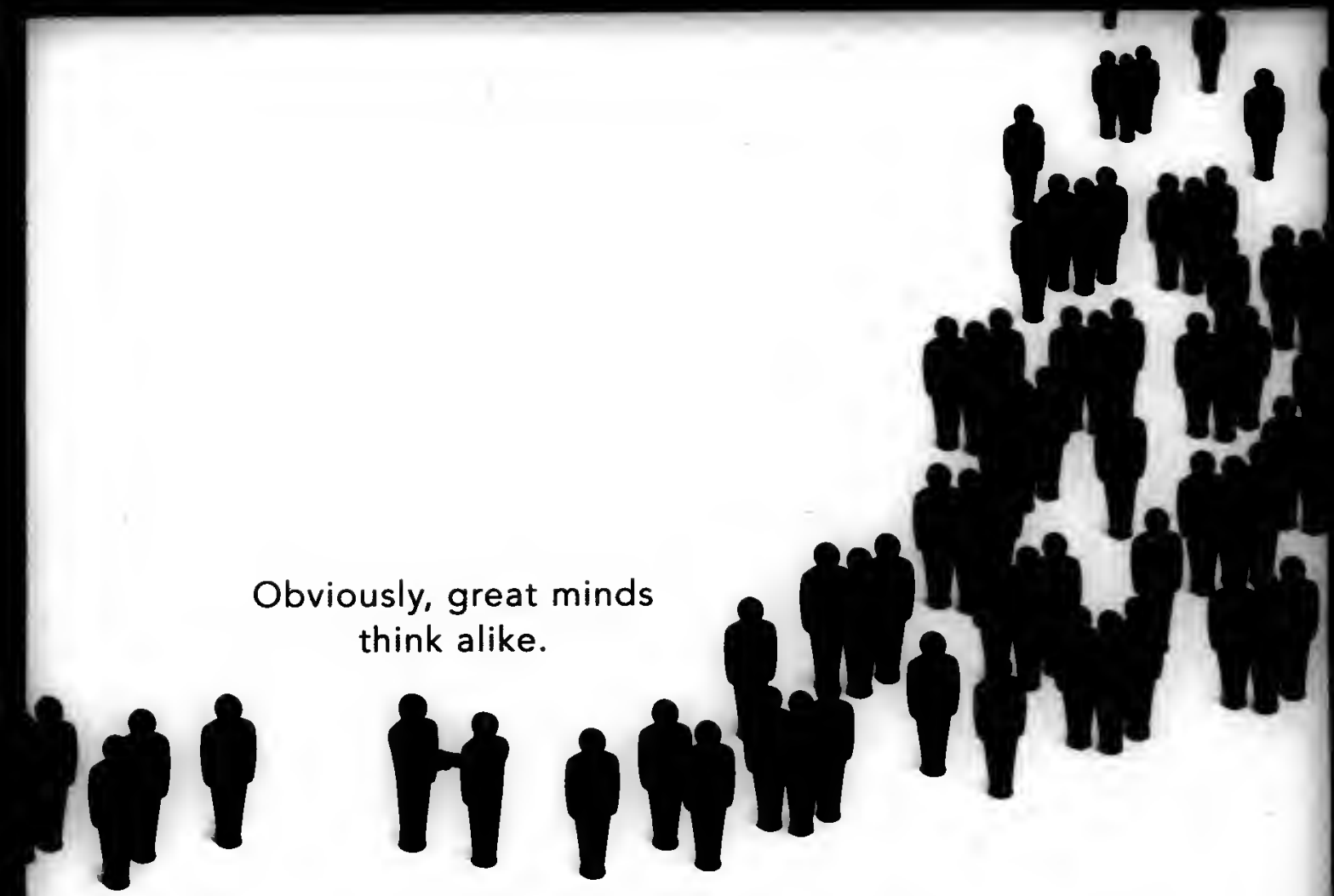

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08.15.05

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In the Technology section: An increasing number of companies are automating their contract management processes to meet regulatory requirements and cut their losses from missed financial opportunities. **Page 21**

Profit Center
In the Management section: When technology turns from a money pit into a revenue producer, perceptions change. Here's how some innovators in DSC Logistics' IT group, including CIO Jon Fieldman, made that happen. **Page 27**

NEWS

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7 **Microsoft's HoneyMonkey** research effort could eventually lead to URL filtering products — or lawsuits.

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18 **David Moschella** thinks needless complexity and redundancy must be reduced for companies to realize the agility that IT should enable.

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KNOWLEDGE CENTER DEVELOPMENT

The New World of Application Development

EDITOR'S NOTE: Application development groups are facing new pressures for reusability, long-distance collaboration, process controls and regulatory compliance. Here's how IT leaders are coping. **PACKAGE BEGINS ON PAGE 33.**

34 **Adapting to SOA.** Service-oriented architectures are changing the way developers work. At Sabre Holdings Corp., "most developers would rather develop from scratch. There is a lot of resistance," says Mike Missler, reuse program manager.

36 **Global Workgroups.** Companies must use a combination of tools and processes to enable long-distance collaboration among distributed application development teams. Plus, VA Software's SourceForge collaboration tool has become extremely successful for open-source projects.

40 **Multiple Taskmasters.** Developers face demands from business sponsors, IT executives and quality assurance managers, among many others. Here's how some companies are trying to insulate their developers so they can focus on programming. Also, Joseph Gwozdz, a programmer/analyst at Hannaford Brothers, talks about how he copes with the day-to-day pressures of developing software.

42 **Opinion:** Getting developers to adopt an SOA mind-set isn't easy, according to columnist Mark Hall. It'll take a soft touch to convince some of them.

EXECUTIVE BULLETIN: SOA is *the* hot technology for most large companies, but business, technical and cultural issues must be addressed for a successful implementation. Get the whole story, from the big picture to the how-to-do-it details, in this Executive Bulletin.
QuickLink [illegible]

OPINION. Managing across time zones isn't easy, says project manager Johanna Rothman, who shares three tips for successful global projects.
QuickLink [illegible]

WEBCAST. Want to get up to speed on SOA? This brief introduction to SOA concepts includes examples of SOA-related practices from the business world.
QuickLink [illegible]

PREDICTIONS. Experts offer their visions for the new world of application development, including a focus on business process delivery and agile development.
QuickLink [illegible]

AT DEADLINE

Intel Set to Unveil New Architecture

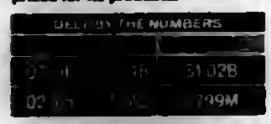
Intel Corp. at its fall developer forum next week plans to introduce a new architecture for building its chips. In his keynote, CEO Paul Otellini is set to announce the "next-generation architecture," which will be completed in the second half of 2006. The move appears to signal the end of the NetBurst architecture, the foundation of the Pentium 4 and Xeon chips for the past five years.

Microsoft to Release Service Pack Again

Microsoft Corp. has confirmed plans to re-release Update Rollup 1 for Windows 2000 Service Pack 4 because of several problems users are having with the current version. The rollup has been downloaded several million times since its release on June 28, but some users are reporting problems connecting to servers running Citrix and compatibility issues with third-party security software.

Dell Results Fall Short of Plans

Dell Inc. fell short of analyst estimates for second-quarter revenue, citing a decrease in average selling prices for its products.



Amazon Settles Patent Lawsuit

Amazon.com Inc. will pay out $40 million to Soverain Software LLC to settle two lawsuits alleging patent infringement, the online giant revealed in a filing last week with the U.S. Securities and Exchange Commission. Amazon said it will make a one-time payment of $40 million to Soverain, a Chicago-based e-commerce company, in the third quarter of 2005.

IBM Releases Open Analytics Interface

Fifteen vendors join open-source move

BY HEATHER HAVENSTEIN

IBM LAST WEEK unveiled open-source technology designed so companies can apply analytics to call center logs, warranty claims, technician notes and other unstructured data.

IBM's Unstructured Information Management Architecture (UIMA) will help companies corral elusive unstructured data contained in documeots, e-mails, Web sites and video for inclusion in their business intelligence and knowledge management efforts, users said. The UIMA framework provides standard interfaces to let corporate developers or IT vendors easily add unstructured information analytics to applications, IBM said.

In conjunction with IBM's announcement, 15 vendors, including SAS Institute Inc., Cognos Inc., ClearForest Corp. and Attensity Corp., last week pledged to support UIMA in their products. IBM also introduced a product called IBM WebSphere Information Integrator OmniFind Edition, which is based on UIMA.

Extending Investments

According to Tom Welke, vice president of North American operations at Whirlpool Corp., using UIMA as a standard interface will allow the Benton Harbor, Mich.-based company to extend its existing investments in text analytics to other areas.

Whirlpool has been using software from Attensity for the past three years to pluck unstructured data from the records generated from the 400,000 customer calls it logs every month in its call center. With UIMA, Welke said he hopes to be able to take that analysis and send it back to the call center in real time.

Regulatory DataCorp International LLC is deploying ClearForest's Text Analytics Suite, which is compliant with UIMA, to analyze thousands of sources of unstructured data daily, including media articles, government reports and Web sites, to add information to its Global Regulatory Information Database. The company was formed by 20 banks and financial services firms, such as Goldman Sachs & Co., Merrill Lynch & Co. and Citigroup Inc. It uses the database to help these companies lessen the risks of money laundering, fraud and terrorist financing, said Bob Catucci, president and CEO of New York-based Regulatory DataCorp.

Before using the ClearForest tools, company employees would manually search for information.

"If one of these terrorists was able to use your systems to transfer funds . . . the government will be asking what you are doing to protect yourself," Catucci said. "You couldn't do this with an army of people reading articles."

Hadley Reynolds, an analyst at Delphi Group in Boston, said companies traditionally have been writing one-off interfaces to incorporate unstructured data into their analytic efforts.

UIMA is designed to let companies use the interface standard once to link unstructured data into multiple applications, he added. **56151**

SCO CEO Talks About IBM Lawsuit, Plans

BY TODD R. WEISS
LAS VEGAS

The critics have been harsh on The SCO Group Inc. since it claimed ownership of pieces of Linux in recent years via lawsuits and threatened legal action. **Darl McBride,** *president and CEO of SCO, talked with* Computerworld *during the SCO Forum here last week about the state of SCO and about its future — whether it wins or loses its legal battles.*

Did you expect that more business users of Linux would license Unix code from the SCOsource intellectual property licensing group following the lawsuits? The SCOsource licensing deals were originally not created by us but from requests by customers. They didn't want to wait for the conclusion of the legal battles, and they wanted to use Linux with SCO Unix licenses. We had some initial takers. People started signing np until other companies said, "We will cover you if SCO ultimately wins its court fight." It's kind of been an interesting scenario. We're just not pursuing it anymore. We just don't have time to do everything. Let's get our courtroom victories, and then we'll re-evaluate the situation.

What is SCO's business strategy for the period before the IBM case goes to trial in February 2007? We want to be the leaders in agile computing by 2010. Agile computing is where you can take your business applications with you wherever you are, on whatever device you have.

The last 25 years was about business applications. The next 25 years will be about business applications, but on new devices. It's technology we had. We're building on it.

Since you filed the lawsuits, critics have been saying that SCO has become a company of IP rights and is no longer a products company. How do you respond to that criticism? The legal-fee caps placed on our legal expenses earlier allow us now to focus on our products. Had we not had the caps on the fees, the company might not even be here in the future because it would continue to have to pay out high legal expenses.

What happens to SCO if it wins its case against IBM, and what happens if it loses? I thought in the past that if we lost, we were done. But I've totally changed my view on that. If we lose, we still have the start-up technologies with brand reach around the world. If we win, you pour fire on that mega-start-up, and it just gets hotter. If we win, I don't think other lawsuits will be necessary.

That said, what is the future of SCO? We want to backfill so our technologies are as big as our brand. We think two years from now is the right time for the next SCO OpenServer update. We've got a lot of things bubbling up. I like our chances far better now, obviously, more than three years ago. I like our chances now not just in the courtroom, but in the marketplace. **56143**

'HoneyMonkey' Effort Could Presage URL Filtering Bid

But unclear if Microsoft research goal in the long term is new products or lawsuits

BY JAIKUMAR VIJAYAN

A Microsoft Corp. research effort to detect and analyze Web sites that host malicious code could enable the company to one day offer enterprises the same capabilities vendors of URL filtering products have been pitching for some time now.

But for now, at least, it remains unclear whether this is the direction Microsoft is headed with its research effort, users and analysts said this week.

The company last week released a report summarizing the first month of testing of its Strider HooeyMonkey Exploit Detection System. The question is whether Microsoft plans to use its research to sue malicious Web site operations "out of existence, or whether they plan to get into the content-filtering business," said Eric Beasley, senior network manager at Baker Hill Corp., a Carmel, Ind.-based application services provider.

"At first glance, it looks like they are wanting to get into the content-filtering space" like other vendors, Beasley said. The information gathered by the HoneyMonkey network will allow Microsoft to build lists of malicious URLs that companies can block employees from accessing, he said.

Vendors such as Websense Inc., Secure Computing Corp. and Surf Control USA, for instance, already sell such URL filtering products based on similar lists.

Defensive Effort

Microsoft launched the system as part of a bid to identify and head off attacks that use Web servers to exploit unpatched browser vulnerabilities and install malware on compromised PCs, said Yi-Min Wang, group manager of the company's Cybersecurity and Systems Management Research Group.

The system uses an automated network of HoneyMonkey systems to patrol the Web for sites that exploit browser vulnerabilities [QuickLink 56122].

Each HoneyMonkey on the network is a computer or virtual PC that actively mimics the actions of a user surfing the Web, according to Microsoft.

Some of the systems on the network run fully patched browsers. Other systems run partially patched browsers, and the rest use browsers that haven't been patched.

In its first mooth of testing, the Strider project located 752 URLs for Web sites that automatically infect unpatched Windows XP systems when users visit them, Wang said. A majority of the URLs belong to pornographic sites, although a few also belong to Internet advertising companies, shopping sites and search engine companies, Wang said.

Such informatioo allows Microsoft to stay on top of new and emerging Internet threats, said Stephen Toulouse, program manager of Microsoft's Security Response Center. "We are working with ISPs, law enforcement, customers, etc., to provide data about the threats out there," be said.

Toulouse didn't elaborate on Microsoft's future plans for using HoneyMonkey.

Feeder Project

For the moment, HoneyMonkey appears to be a pure research effort by Microsoft, said John Pescatore, an analyst at Gartner Inc. But don't be surprised to see the information used to "feed future products" from the company, be said.

For instance, the information gathered by the HoneyMonkey network could allow the company to build better defenses in its growing suite of antispyware and antivirus products, he said.

"For now, it's just more research and data to sift through to try and figure out how to overcome the failings of the Microsoft programming groups," said Russ Cooper, editor of the NTBugtraq mailing list and a senior scientist at Cybertrust Inc. in Herndon, Va. "I'd be happier if Microsoft were making IP addresses and DNS names available now for every site they identify, with the caveat that the site may actually not be malicious." QL 56175

IT Uses Web Services to Preserve Data

Turns to tools to help modernize aging systems

BY HEATHER HAVENSTEIN

Corporate IT operations are quickly ramping up Web services projects to preserve existing investments in mainframes and other legacy systems by unlocking their data for use in new Web-based applications.

For example, the 17th Judicial Court of Florida is building a real-time case management system based on Web services that's expected to be in production this fall.

The new system will use Shadow z/Events event management tools from Neon Systems Inc. along with the Web services.

The Neon tools will reside on the clerk of the court's VSAM mainframe and juvenile and court administration databases to "listen" for new data updates, said Les Pearson, systems and programming manager with the Judicial Information Systems department at the Fort Lauderdale-based court.

These changes will be reflected in a real-time data warehouse that can be accessed by 400 to 500 case managers and other judicial personnel, Pearson said.

American Automobile Association Carolinas, meanwhile, is already planning to significantly expand the use of its 4-month-old paperless processing system that incorporates Web services to expose AS/400-based insurance policy and claims data to a new Web-based application.

Harry Johns, manager of insurance information technology at the Charlotte, N.C.-based company, said that over the next six to eight months the system will be expanded to support thousands of workers compared with the hundreds who use it now.

That system was implemented in April, and AAA Carolinas estimates that since then it has saved $20,000 that it would have spent to store paper records.

Using IBM WebSphere integration middleware and a document imaging and management Web application from RJS Software Systems Inc., AAA Carolinas has built a system that eliminates all paper-based processing, Johns said.

As a result, the company has

slashed claims processing and new policy sign-up times from weeks to hours and has seen a 60% spike in its customer acquisition and retention from the $100,000 project, Johns added. "We're trying to take advantage of as moch of the benefits the AS/400 has to offer as we can," he said. The new system "reduces the costs because we can reuse the services for multiple things."

Vendors, meanwhile, are updating their tools to help enterprises integrate mainframe data with service-oriented architectures (SOA).

Sugar Land, Texas-based Neon Systems last week rolled out a new mainframe enterprise service bus designed to work as an "on ramp" for mainframe integration using Web services.

AttachmateWRQ began shipping Web integratioo software last month from Kapow Technologies with its own Verastream host integration software.

Vestmark Inc., which provides a hosted platform for financial service asset managers and banks to reconcile and update client accounts, is using technology from AttachmateWRQ and Kapow to access data and business logic from mainframes and other back-end systems, said John Lunny, vice president and chief operating officer of Wakefield, Mass.-based Vestmark.

"It provides us the interface we need to get the account data," Lunny said. "Without this technology, people would have to go to Web sites or go to legacy systems to correct a trade."

Ron Schmelzer, an analyst at ZapThink LLC in Waltham, Mass., said about 50% of SOA initiatives are mainframe-based projects because companies can preserve the mainframe but "still have applications that are just as agile and flexible as anything they could build in Java or .Net." QL 56177

PATCH MANAGEMENT

Microsoft has released additional patches for Windows and Internet Explorer

QuickLink 56179
www.computerworld.com

BRIEFS

SSA Buys HR Software Maker

SSA Global Technologies Inc. has agreed to acquire Boniva Software Inc., a maker of human resources management software, for an undisclosed sum. The move comes just a week after SSA agreed to buy CRM software maker Epiphany Inc. for $329 million [QuickLink 55691]. SSA Global said that it will integrate Boniva's technology with its own SSA human capital management suite.

Nortel Earnings, Sales Up in Q2

Nortel Networks Corp.'s earnings more than doubled in the second quarter as the telecommunications equipment company saw higher sales of enterprise and wireless gear.

Q2 05	$2.86B	$45M
Q2 04	$2.59B	$16M

AOL Buys Wildseed For Wireless Unit

America Online Inc. has acquired privately held Wildseed Ltd., a maker of Linux-based software for mobile devices. Wildseed will become a key part of a new wireless unit AOL created to boost its mobile services. The new unit will also include AOL's Tegic Communications operation, which builds technology to simplify the entry of text into mobile devices, and AOL Mobile, the company's mobile services arm.

Spammer to Pay $7M to Microsoft

Microsoft Corp. has settled a lawsuit that it filed two years ago against Scott Richter, who at one time helped distribute more than 30 billion unsolicited e-mails per year. Richter and his online marketing company, OptInRealBig.com LLC, agreed to pay Microsoft $7 million to settle the suit, which was filed in December 2003.

ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY BUZZ BY MARK HALL

MATTHEW FAULKNER

Money and Who Makes It Is . . .

. . . a sensitive issue in the open-source community. According to Mitchell Baker, president of the Mozilla Foundation in Mountain View, Calif., "Anytime money gets into the picture, people get suspicious." Baker was explaining to an audience of open-source

developers at the O'Reilly Open Source Convention in Portland, Ore., earlier this month why she feels her nonprofit organization needs a for-profit sister company to promote and manage the world's No. 2 Internet browser, Firefox.

The money problem inside the open-source world stems from the fact that most developers who contribute to open-source projects do so for free, while some individuals build successful companies around those projects and profit from them. Paul Everitt, executive director of the Plone Foundation in Houston, which promotes the Plone open-source content management software, says, "If you want to attract developers, you can't give off the smell that someone's going to make a lot of money" while leaving the developers in the cold.

Mike Shaver, the Mozilla Foundation's technology strategist, says those views helped shape the structure of the new Mozilla Corp. so it would own no assets and, despite its for-profit status, would be unlikely to earn a dime. "Everything we do is for the [Mozilla] community," he says.

Winston Damarillo, CEO of Simula Labs LLC, a venture capital business that nurtures open-source companies, acknowledges that there's "a little bit" of resentment among some open-source programmers. Damarillo, who recently sold open-source application server firm Gluecode Software Inc. in El Segundo, Calif., to IBM [QuickLink 54295], proudly says, "We produced a few open-source millionaires." But he stresses that his goal is to offer the "inner core [of developers] of an open-source project to be co-founders" of the companies that Simula Labs will launch.

Zach Urlocker, vice president of marketing at the leading open-source database company, MySQL Inc. in Cupertino, Calif., claims that open-source developers "are less extremist today." Still, he says it is essential for MySQL "to err on the side of over-communicating" the company's goals to developers to deflect any resentment that the company makes money. In addition, says CEO Marten Mickos, MySQL pays for key pieces of code developed by contributors to its database. Damarillo argues that people in the open-source community have much to offer the IT industry. "The biggest loss for open-source is if developers become salaried employees instead of entrepreneurs," he says.

Open-source code can pose legal . . .

. . . headaches for IT departments if they don't carefully manage the Byzantine licensing requirements. Paul Henderson, vice president of marketing at Black Duck Software Inc. in Waltham, Mass., claims that his company's knowledge base includes nearly 600 different licenses and their terms. He says Black Duck's ProtexIP software will analyze your code to make sure you're in compliance with the various terms demanded by these agreements.

Mark Tolliver, CEO of San Francisco-based Palamida Inc., which offers a competing product called IP Amplifier, says open-source license management tools are essential because developers slip free but licensed code from the Internet into corporate projects. And, he says, IT managers involved in mergers and acquisitions need a license evaluation tool to review code to ensure that software assets they are acquiring meet IT policies. Tolliver says that because IP Amplifier can scan your code, a logical extension for IP Amplifier in the future will be to also scan for export-control compliance and security deficiencies.

58

Number of open-source licenses in the Open Source Initiative

A licensed version of Black Duck's ProtexIP starts at $25,000. An ASP version begins at $3,000. Palamida's IP Amplifier starts at $5,000 per developer.

Detect external reconnaissance . . .

. . . of your network, then block the source. That's the "simple" technique used by ForeScout Technologies Inc. in Cupertino, Calif., says Ray Wizbowski, senior director of market development. Its tools detect outsiders who ping devices, sweep network ports and use other hacking techniques, then they refuse the source of those recon efforts to reach your network. The Aug. 22 release of its CounterAct 5.0 appliance software will be able to determine whether endpoint devices accessing the network are compliant with policies regarding antivirus software, patches and other conditions set by IT. Pricing starts at $12,000. **56129**

ForeScout's CounterAct security appliance

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AT DEADLINE

ETrade Spends $700M for Broker

ETrade Financial Corp. has agreed to acquire the U.S.-based online brokerage operations of Harrisdirect LLC from BMO Financial Group. The $700 million acquisition will add approximately 430,000 customer accounts with about $32 billion in total assets to the business, according to ETrade officials. The transaction is expected to close by the end of the year, pending regulatory approvals.

Cisco Reports Profit, Revenue Increases

Cisco Systems Inc. reported an 11% increase in fourth-quarter revenue compared with the year-earlier figure. Profits also increased in the quarter.

Q4 '05	$6.6B	$1.5B
Q4 '04	$5.9B	$1.1B

Former WorldCom CFO Gets Five Years

Former WorldCom Inc. Chief Financial Officer Scott Sullivan was sentenced to five years in prison for his role in engineering the $11 billion accounting fraud that led to the bankruptcy of the telecommunications powerhouse. Sullivan last year cooperated with prosecutors and agreed to plead guilty to fraud, conspiracy and filing false financial documents.

HP CEO to Headline New Tech Forum

In an apparent change of heart, Hewlett-Packard Co. CEO Mark Hurd will be the keynote speaker at the company's HP Technology Forum 2005. Hurd had earlier come under criticism for not planning to speak at the forum [QuickLink 55546] due to a scheduling conflict. The forum will be held Sept. 12-15 in New Orleans.

Scottish Police Dump StarOffice for Windows

Integration needs, maintenance costs drive changeover

BY JAMES NICCOLAI AND TODD R. WEISS

THE CENTRAL Scotland Police operation is removing Sun Microsystems Inc.'s StarOffice productivity software from about 400 PCs and switching to Microsoft Corp.'s Office system. Officials cited lower maintenance costs and the need to interoperate more smoothly with other departments running Windows.

The switch is the latest example in Europe of a tussle for business between Microsoft and open-source software.

Several European organizations, particularly public agencies, have been adopting or experimenting with Linux and other open-source products in recent years, but the move by the Randolphfield, Scotland-based police unit shows the migrations are not all one way.

"It's not really based on any ideological argument about open-source software; it's based on pure business needs," said David Stirling, head of IT for Central Scotland Police.

The agency is one of eight police jurisdictions in Scotland and employs about 1,000 officers and support staff. It adopted StarOffice in 2000 when it was short of cash after paying for a new crime reporting application, Stirling said.

The police department expects to significantly reduce its maintenance and administration costs using the Microsoft software, Stirling said. He stopped short of saying that the total overall cost of ownership would be lower but estimated that the Microsoft software would cost no more than its previous system and offer efficiencies.

> **"[The switch to Windows] is not really based on any ideological argument about open-source software; it's based on pure business needs."**
>
> **DAVID STIRLING,** HEAD OF IT, CENTRAL SCOTLAND POLICE

The agency had retained Windows on its desktop PCs but ran StarOffice applications from a central Sun Unix system and 30 Linux servers installed at branch offices. Early this year, following a review of its infrastructure and a follow-up study in March, it decided to switch.

Not all analysts were surprised by the agency's decision, noting that organizations ofteo change technologies to achieve a better fit, but some said that such a move may indicate Microsoft could be returning to favor in Europe.

A Sun spokesman declined comment on the move.

Laura DiDio, an analyst at The Yankee Group in Boston, said changing conditions for the police department make deals like this one understandable. "StarOffice is a great package," she said, but it may not have all the collaboration and other features needed by the police today to help fight terrorism electronically.

Carol Baroudi, an analyst at Hurwitz & Associates in Waltham, Mass., said the deal "is not an insignificant thing" because Microsoft has beeo taken to task across much of Europe for its high prices as many governments have moved to open-source applications and Linux to save money.

"There'a a very strong open-source push in Europe, so to win back accounts is no small thing," Baroudi said. **56176**

Niccolai is a reporter for the IDG News Service.

China Starts IT Services Push

BY PATRICK THIBODEAU
NEW YORK

All it takes to understand China's growing ambitions in the offshore market is to watch Jin Cao's slide show of numerous large office complexes, too many to quickly count, nestled in comfortable office parks.

Multinational companies that opt to locate offshore facilities in these office parks will also get access to a wide range of government-backed services, including recruitment assistance, bilingual schools and other support facilities — including golf courses.

According to Cao, U.S.A. director of the Dalian Software Park in northeastern China, the government is developing software parks to serve as centers for offshore IT development and business process outsourcing operations. They will also serve as "captive centers" that house offshore facilities owned and operated by foreign firms, in addition to China's own offshore companies.

China's IT Strategy

- Build office parks with close ties to educational facilities to attract offshore development.
- Implement tax policies that encourage investment.
- Create infrastructure services, both technical and human resources, to help firms.

The push is heavily backed by the Chinese government, which hopes to lessen its dependence on foreign technology, develop a domestic technology market and drive its own brands internationally, said attendees at a China IT services conference here.

The event was sponsored by the International Executive Association in Edison, N.J.

The emergence of China as an offshore destination was underscored by Sharon Allen, chairman of the board at Deloitte & Touche USA LLP, who said her firm plans to spend $150 million in China in the next few years to increase its 3,300-person workforce there. China is "poised to reclaim its place at the very top of the international economic ladder," Allen said.

Much of Deloitte's investment will be spent on training and developing its growing workforce, Allen said, noting that "finding skilled workers in many sectors is very difficult and becoming expensive."

China doesn't have a big share of the international offshore market; the majority of its services revenue, 85%, comes from the domestic market. International offshore revenues last year were about $600 million, said Walter Fang, vice president and chief technology officer at Neusoft Group Ltd. in Shenyang.

In contrast, India's international offshore revenue exports were $17.2 billion for the 12 months that ended March 31, according to India's National Association of Software Companies in Delhi.

But Fang predicts expansion in China, particularly as the nation enters the World Trade Organization, hosts the 2008 Olympics and sees a boost in IT spending by the Chinese government.

Part of China's IT strategy is to reduce its dependence on foreign IT products and develop its own brands, said Jamie Popkin, an analyst at Gartner Inc. **56181**

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GLOBAL

An International IT News Digest

IT Services Firm to Expand India Operations

BANGALORE, INDIA

KANBAY INTERNATIONAL INC., an IT services firm focused on the financial services industry, has disclosed plans to expand its Indian development facilities to accommodate nearly 3,000 more workers by next spring.

Rosemont, Ill.-based Kanbay currently employs about 3,800 staffers at Indian development centers in Pune, Hyderabad and Chennai, said Raymond Spencer, chairman and CEO.

Spencer declined to say whether all of the new positions would be filled by early next year, when the facilities will be able to accommodate 6,500 workers.

The company will expand in India in proportion to its revenue growth, Spencer said.

Kanbay currently employs about 4,700 staffers worldwide, 80% of whom work in Indian facilities. The company plans to retain that percentage as it grows, Spencer said.

Kanbay is also exploring the possibility of setting up development centers in China, Eastern Europe and Latin America, according to Spencer.

■ JOHN RIBEIRO, IDG NEWS SERVICE

GLOBAL FACT

CSC, Telkom Sign Pact With African Banks

JOHANNESBURG, SOUTH AFRICA

COMPUTER SCIENCES CORP. (CSC) and Telkom SA Ltd. have signed a five-year, $275 million outsourcing agreement with Nedbank Group Ltd. and Old Mutual SA to build and operate a shared network for the financial services companies. The deal also includes network security and help desk support.

Nedbank and Old Mutual, both in South Africa, are parts of London-based Old Mutual Group.

Nedbank and Old Mutual officials expect the pact to help reduce the risk of technology failures and let them leverage the buying power of two organizations.

Company officials predicted that the two firms will save about $154 million over the life of the pact — $46 million by Old Mutual and $108 million by Nedbank.

■ SAMANTHA PERRY, COMPUTING SOUTH AFRICA

Infineon Spins Off RFID Software Business

DÜSSELDORF, GERMANY

MUNICH-BASED CHIP MAKER Infineon Technologies AG has spun out a new company to take over its work on developing radio frequency identification (RFID) software.

The new firm, RFiT Solutions GmbH, is headed by a group of former Infineon executives. The Graz, Austria-based company acquired all of Infineon's RFID software business, including patents, trademarks and licenses, for an undisclosed price.

Meanwhile, Infineon said it intends to continue to develop, produce and market RFID chips and inlays, which comprise chips, antennas and the connections in between.

RFiT will continue development of the Infineon's You-R OPEN software, which can connect companies' existing logistics IT systems to new RFID-supported logistics systems and to an entire RFID infrastructure of readers, PCs and IT networks. **56125**

■ JOHN BLAU, IDG NEWS SERVICE

Compiled by Mike Bucken.

Briefly Noted

Atos Origin SA, a Paris-based IT services company, has signed an $86 million contract to provide IT services to London-based Network Rail Ltd., which oversees the U.K.'s railway network. The agreement calls for Atos Origin to operate the train management and planning systems that are used to compile Network Rail's timetables and monitor the location of all trains across the nation's rail network.

Pacific Internet Ltd. in Singapore said that Tong Hai Tan resigned as CEO last week in order to seek new "challenges in his career." Tan has been CEO of the Internet service provider since 2001. A search has begun for Tan's replacement, the company said.

■ SUMNER LEMON, IDG NEWS SERVICE

Deutsche Telekom AG agreed last week to buy Austrian mobile phone carrier tele.ring Telekom Service GmbH, a division of Bellevue, Wash.-based Western Wireless Corp., in a $1.6 billion deal. The tele.ring operation, with 968,000 customers, will be folded into Deutsche Telekom subsidiary T-Mobile Austria GmbH, Austria's second-largest operator with more than 3 million customers.

■ JOHN BLAU, IDG NEWS SERVICE

Lawson Embraces IBM Stack to Boost Performance

Is set to release updated version of infrastructure app

BY MARC L. SONGINI

Business applications maker Lawson Software Inc. hopes to cut the complexity and boost the performance of its technology stack with today's rollout of the latest version of its applications infrastructure software, Lawson 8.1.0 Technology.

The new software offers significant enhancements — the result of a tight technological partnership between Lawson and IBM announced in May, said Del Dehn, product manager of Lawson's technology product management group. For instance, customers will be able to standardize their infrastructures around the IBM WebSphere Application Server Network Deployment and the IBM Tivoli Directory Server software products.

Using the IBM Tivoli Directory Server LDAP technology and the new Lawson Security system, customers can quickly create profiles that securely assign rules-based roles to end users. According to Dehn, that will allow companies to easily segregate the duties and privileges of employees and control data access. That ability could help companies comply with the federal Health Insurance Portability and Accountability Act and the Sarbanes-Oxley Act.

Moreover, operating Lawson 8.1.0 Technology with the IBM WebSphere application server will enable IT staffers to boost Lawson's performance and scalability by running the applications over multiple servers. Until now, scaling the Lawson applications required customers to invest in more CPUs on a single machine, a move that could be expensive, said Dehn.

In addition, the St. Paul, Minn.-based company has made the Lawson graphical user interface more configurable. For instance, end users will be able to configure their keyboards to support high-speed data entry by reducing keystrokes.

NEW PRODUCT

Lawson 8.1.0 Technology

Changing Roles

A couple of users said they wanted the simplicity of implementing role-based security through IBM technology.

Prior to this release, Lawson's own proprietary security software would let a company assign just one role to a given user, said Chance Veasey, vice president of operations at Herndon, Va.-based NetASPx Inc. The software service provider runs Lawson ERP applications internally and provides them to 60 customers in North America. It recently completed a beta test of Lawson 8.1.0 Technology.

Using the Tivoli LDAP tool, any user can now be assigned multiple roles without having to create separate security identifications, a process that can be time-consuming, said Veasey. The change will make it easier to comply with federal regulations and simplify the security process, he said.

In addition, with WebSphere, NetASPx can do load balancing among the machines running Lawson, eliminating any single point of failure. Until now, customers have been unable to scale over multiple servers.

Lawson 8.1.0 is available now, and users can install it without having to upgrade their business applications. **56156**

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Lawson 8.1.0 is available now, and users can install it without having to upgrade their business applications. **56156**

Disaster Notification Tools Get a Boost

Some firms finding nonemergecy uses for their systems

BY LUCAS MEARIAN

In the aftermath of the Asian tsunami late last year and a rash of earthquakes off California's coast in June, businesses and governments are racing to roll out more-sophisticated electronic messaging systems to alert and guide people who face possible disaster.

However, corporate investment in these technologies need not be restricted to disaster preparedness.

Greg Radner, senior vice president of corporate executive services at Thomson Financial Inc. in New York, said his firm has been using a mass e-mail service from Envoy-WorldWide Inc. in Bedford, Mass., for the past three years. The system lets Thomson send notifications to users of its online investor-relations services.

Radner said the e-mail service issues about 8 million messages per month through any electronic device to users who sign up for the service via e-mail. The system can also be used for business continuity should disaster strike.

Sense of Urgency

There is a sense of urgency among those preparing for the unthinkable that's spurring adoption of such technologies. By the end of 2007, 75% of Global 2,000 companies will have emergency notification systems for employee communication in the event of a crisis and as part of disaster recovery plans, according to a recent report by Gartner Inc.

Financial services firms have been leading the way in alerting employees and customers to industry news and earnings and in complying with Sarbanes-Oxley Act requirements, according to Gartner analysts.

"Some auditors are pushing the fact that companies need some availability of these services of business continuity for SOX compliance," said Gartner analyst Roberta J. Witty.

Gartner analyst Christopher Baum said mass-messaging technologies can also be used as two-way communication tools to "help build your recovery process."

After the California temblors, governments started purchasing mass-notification services at an increasing rate, in part because those earthquakes exposed flaws in several states' emergency notification systems, Baum said.

The June quakes prompted tsunami warning centers in Hawaii and Alaska to issue alerts and advisories up and down the Pacific Coast. The West Coast & Alaska Tsunami Warning Center in Palmer, Alaska, issued the first warning of the West Coast quakes, from Mexico to Canada, but the Pacific Tsunami Warning Center in Ewa Beach, Hawaii, said there was no tsunami watch or warning in effect. The conflicting messages and jammed phone lines created some confusion among state and local officials. San Francisco officials said they learned of the tsunami warning on TV, reports stated.

"These systems could definitely use debugging. There were several problems noted in these last warnings," said Paul Whitmore, chief scientist at the West Coast & Alaska Tsunami Warning Center.

Kenneth Murphy, director of the state of Oregon's emergency management services in Salem, said 911 emergency communications centers are often overcome by calls during a disaster. "We've got to have one message that goes out over one system, no matter whose message it is," Murphy said.

Murphy said IP technology may help with increasing the bandwidth of today's jammed phone lines.

Like Murphy, Celeste Cook, director of the Office of Emergency Management for Santa Clara County, Calif., is looking for new messaging technology. She said her office is about to take bids for a mass-notification network, thanks to funds from the U.S. Department of Homeland Security.

"The big question is, Where do I want to put my vulnerability? If you choose to use land lines, then your vulnerability is land lines. If you choose the Internet, then you're banking the Internet won't go down," Cook said. "We're going to look at a system that has the most redundancy." 56142

What to Look for in a Notification Provider

- Has expertise in your industry (important in regulated industries).
- Provides tools that are easy for planning and recovery teams to learn.
- Supplies training, technical support and consulting services.
- Can export data into and out of its product suite and enterprise applications so that administration of the tool is faster and less prone to error.
- Offers a family of products that enable the tool to be upgraded easily as the plan grows.

SOURCE: DR. FINKELSTEIN, STAMFORD CONN.

VMware Offers Code Access to Partners

Aim is improved product integration

BY PATRICK THIBODEAU

VMware Inc. last week said it wants to give its third-party vendors a leg up in developing products that work well with its virtualization technology by allowing them access to its source code, in addition to pushing for open standards in virtualization.

If the move by the Palo Alto, Calif.-based company does result in management software improvements, that would please Ben Thompson, senior network engineer and manager at The Community College of Baltimore County in Maryland. IBM is one of the vendors that will get VMware source-code access, and Thompson runs IBM Director as the management software for his IBM BladeCenter, which uses VMware ESX Server. Thompson said that at present, Director "doesn't quite have the detail that one would hope for" in providing information about the performance of his ESX servers.

VMware partners will be able to access the virtualization software server's source code under a royalty-free license. The partners can then contribute shared code or create binary modules to help with interoperability and integration. An architecture board will help manage partners' contributions and suggestions.

To this point, VMware, an independent subsidiary of EMC Corp., hasn't given vendors access to its source code, said VMware's Raghu Raghuram, senior director of strategy and market development. But with access, a vendor such as Cisco Systems Inc. would be able to ensure that its switches interoperate with VMware.

VMware's open-standards effort will address issues such as how an operating system talks to the virtualization layer and how the virtual machine is represented on a disk, said Raghuram. The management interfaces are already published and available, he said.

Another VMware user, Tony Adams, a technology analyst at agribusiness firm J.R. Simplot Co. in Boise, Idaho, said VMware's move strikes him as a gamble. "They had been setting themselves to be a requisite part of the data center, [and] I don't know if this will dilute that possibility," he said.

If VMware had truly made its code open-source, then the company could have opened itself up to more competition, said Gordon Haff, an analyst at Illuminata Inc. in Nashua, N.H. But VMware's decision to share its source code with selected partners "forestalls that option."

In regard to source-code access, Haff said that vendors can already get a Windows source-code license from Microsoft Corp. He viewed the VMware announcement as more of an expansion of its working relationships with its vendors. VMware's main competitor is Microsoft, which purchased virtualization company Connectix in 2003 and has since released its Virtual Server. 56162

VMware's Partners

Some of the third-party vendors that will have access to VMware source code:

- Advanced Micro Devices Inc.
- BMC Software Inc.
- Computer Associates International Inc.
- Dell Inc.
- Hewlett-Packard Co.
- IBM
- Intel Corp.
- Novell Inc.
- Red Hat Inc.
- Sun Microsystems Inc. [text illegible] VMware to deliver its virtualization capabilities on Sun Fire x86 systems.

China Martens of the IDG News Service contributed to this story.

IBM's Mills: Linux Is Not Just for Unix Replacement

BY CAROL SLIWA
SAN FRANCISCO

Steve Mills, senior vice president and group executive for IBM's software division, spoke with *Computerworld* at the LinuxWorld Conference here last week about Linux usage trends and the open-source operating system's future.

To what degree are you starting to see fresh deployments of Linux, as opposed to customers who are merely switching from Unix to Linux? They're still doing what they were doing, but they're also now doing a lot of incremental new implementations. What has been building momentum in the marketplace for the last couple years has been actually new applications going in that are running on Linux. Application providers are putting their code onto Linux because they want new sales.

Now that Linux is maturing, are you seeing more companies trying to virtualize their environments? There is clearly a trend toward trying to get better cost of ownership. The use of VMware or the Xen open-source hypervisor, these kinds of things are building up momentum in the marketplace because the customers are staring at cost of ownership and often relatively lightly loaded individual servers.

To what degree is IBM working on Xen? We have internal activity related to Xen. We are engaged with the [Xen] community. We're anxious to see Xen become more mature. We think the market needs choices on hypervisor virtual machine capability. An open hypervisor certainly has a lot of attractiveness.

Will Xen be IBM's recommendation for customers, once it's fully cooked and ready? We wouldn't be engaged in it if we didn't feel that we were going to eventually be putting a big endorsement around it.

How do you feel about Linux being a two-horse race between Red Hat and Novell? There were always smaller distributors, but this two-horse race phenomenon has been with us now for some time. We're perfectly fine with it. It's about distribution. It's about accessibility by the buyers to a fully packaged operating system.

You don't feel the need to have more control over Linux distribution? No.

Given the growing popularity of Linux, what are the plans for AIX? We'll continue to invest in AIX for as long as we have customers that are using AIX. I still have a team on OS/2.

Hewlett-Packard and Open Source Development Labs discussed the need to curb the proliferation of open-source licenses. What's your take? There's always going to be more than one. It's hard to imagine the world's going to get to one licensing model. So we're not necessarily bothered by the fact that there are multiples. We kind of expect that.

What about HP's call to adopt the GPL? Well, that's never going to happen. There are multiple viable popular sets of terms.

Do you disagree with what Sun did with open-source Solaris? They're hunting for ways to grow their business. I assume that's why you do those kinds of things. I'm not sure where that particular strategy goes in terms of what that'll mean to their financials as a company. But the fact that there are multiple licenses out there, to me, this is sort of a silly issue. **56180**

MORE ONLINE

For an extended version of the interview with Steve Mills, visit our Web site

QuickLink 56173
www.computerworld.com

Continued from page 1

LinuxWorld

allows multiple operating systems to run concurrently on the same physical server — is nearing finalization. The leading Linux distributors, Red Hat Inc. and Novell Inc., plan to incorporate Xen into the next versions of their operating systems. And new chip technology on the way from Intel Corp. by the end of the year and Advanced Micro Devices Inc. next year promises to boost performance.

Some Linux users, including top financial institutions, have been so anxious to get their hands on the new Xen technology that they have been testing early versions of it, said Simon Crosby, a founder of Palo Alto, Calif.-based start-up XenSource Inc., which plans to sell products in support of Xen.

But that doesn't mean they expect to deploy Xen in a production environment anytime soon. Timothy Golden, a senior vice president of Linux engineering at Bank of America Corp., said the company is considering many approaches to Linux virtualization, including Xen, and is anxious to see what lessons are learned by the early adopters.

"Obviously there's a buzz, and we're excited too," he said. "But at this point, it's more important that the industry signals the space is truly enterprise-ready before we rush to production."

Waiting Game

A CIO at a major financial firm who asked not to be named said he doesn't think Xen will be considered for production use until the middle of next year. "Most are doing what we're doing — waiting for Xen to be fully integrated into Linux. In the meantime, we're doing some serious playing," he said.

His company already uses commercial virtualization technology from VMware Inc. for its Windows-based Citrix Systems Inc. terminal servers and its development and quality assurance machines.

Many of the financial firm's thousands of Linux servers see only 25% to 30% utilization and could benefit from virtualization. But the CIO said many users will be reluctant to pay for VM software for large environments.

"We have much more ambitious plans in the Linux space for virtualization," he said. "We want it as fast as anyone else. If we could get it today, we would deploy it. But it's not ready."

Not every Linux user has been willing to wait for the open-source options to materialize. Some IT shops have already virtualized their Linux environments, typically in tandem with Windows servers using software from VMware.

Assurant Inc. purchased VMware software as part of a strategic decision to consolidate its Windows and Linux servers, said Ryan Pearson, a Woodbury, Minn.-based lead systems administrator at the insurance company. Assurant has since found additional benefits, such as a reduction in the time required to provision servers from days to as little as an hour in some cases.

Pearson said that Xen looks promising and that his company will likely consider it if it has the same capabilities as VMware's software.

J.R. Simplot Co. ran out of space for racks in its data center and turned to VMware about three years ago to virtualize both its Windows and Linux server environments, said Tony Adams, a technology analyst at the Boise, Idaho-based agribusiness.

The company was able to eliminate hardware at roughly a 3-to-1 ratio and now has 150 Windows "guest" operating systems and about 50 Linux instances running on 15 physical servers equipped with VMware software, Adams said.

David Trainor, a senior middleware analyst at Louisville, Ky.-based Yum Brands Inc., which owns and franchises KFC, Pizza Hut, Taco Bell and other fast-food franchises in about 100 countries, said the company will likely stick with VMware. Yum has already made the business case for it, estimating savings at $250,000 in the first year, Trainor said.

Some of the company's Windows servers were using as little as 1% or 2% of their processing power, Trainor said. Yum expects to have 276 virtual machines on 60 boxes by year's end, he added.

So far, many of the pain points of server sprawl that virtualization software can help to alleviate are most visible with Windows, noted Tony Iams, an analyst at Ideas International Inc. He said it's unclear whether Linux servers will encounter the same underutilization issues. **56182**

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You don't feel the need to have more control over Linux distribution? No.

Given the growing popularity of Linux, what are the plans for AIX? We'll continue to invest in AIX for as long as we have customers that are using AIX. I still have a team on OS/2.

Hewlett-Packard and Open Source Development Labs discussed the need to curb the proliferation of open-source licenses. What's your take? There's always going to be more than one. It's hard to imagine the world's going to get to one licensing model. So we're not necessarily bothered by the fact that there are multiples. We kind of expect that.

What about HP's call to adopt the GPL? Well, that's never going to happen. There are multiple viable popular sets of terms.

Do you disagree with what Sun did with open-source Solaris? They're hunting for ways to grow their business. I assume that's why you do those kinds of things. I'm not sure where that particular strategy goes in terms of what that'll mean to their financials as a company. But the fact that there are multiple licenses out there, to me, this is sort of a silly issue. 56180

MORE ONLINE

For an extended version of the interview with Steve Mills, visit our Web site:
QuickLink 56173
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Continued from page 1

LinuxWorld

allows multiple operating systems to run concurrently on the same physical server — is nearing finalization. The leading Linux distributors, Red Hat Inc. and Novell Inc., plan to incorporate Xen into the next versions of their operating systems. And new chip technology on the way from Intel Corp. by the end of the year and Advanced Micro Devices Inc. next year promises to boost performance.

Some Linux users, including top financial institutions, have been so anxious to get their hands on the new Xen technology that they have been testing early versions of it, said Simon Crosby, a founder of Palo Alto, Calif.-based start-up XenSource Inc., which plans to sell products in support of Xen.

But that doesn't mean they expect to deploy Xen in a production environment anytime soon. Timothy Golden, a senior vice president of Linux engineering at Bank of America Corp., said the company is considering many approaches to Linux virtualization, including Xen, and is anxious to see what lessons are learned by the early adopters.

"Obviously there's a buzz, and we're excited too," he said. "But at this point, it's more important that the industry signals the space is truly enterprise-ready before we rush to production."

Waiting Game

A CIO at a major financial firm who asked not to be named said he doesn't think Xen will be considered for production use until the middle of next year. "Most are doing what we're doing — waiting for Xen to be fully integrated into Linux. In the meantime, we're doing some serious playing," he said.

His company already uses commercial virtualization technology from VMware Inc. for its Windows-based Citrix Systems Inc. terminal servers and its development and quality assurance machines.

Many of the financial firm's thousands of Linux servers see only 25% to 30% utilization and could benefit from virtualization. But the CIO said many users will be reluctant to pay for VM software for large environments.

"We have much more ambitious plans in the Linux space for virtualization," he said. "We want it as fast as anyone else. If we could get it today, we would deploy it. But it's not ready."

Not every Linux user has been willing to wait for the open-source options to materialize. Some IT shops have already virtualized their Linux environments, typically in tandem with Windows servers using software from VMware.

Assurant Inc. purchased VMware software as part of a strategic decision to consolidate its Windows and Linux servers, said Ryan Pearson, a Woodbury, Minn.-based lead systems administrator at the insurance company. Assurant has since found additional benefits, such as a reduction in the time required to provision servers from days to as little as an hour in some cases.

Pearson said that Xen looks promising and that his company will likely consider it if it has the same capabilities as VMware's software.

J.R. Simplot Co. ran out of space for racks in its data center and turned to VMware about three years ago to virtualize both its Windows and Linux server environments, said Tony Adams, a technology analyst at the Boise, Idaho-based agribusiness.

The company was able to eliminate hardware at roughly a 3-to-1 ratio and now has 150 Windows "guest" operating systems and about 50 Linux instances running on 15 physical servers equipped with VMware software, Adams said.

David Trainor, a senior middleware analyst at Louisville, Ky.-based Yum Brands Inc., which owns and franchises KFC, Pizza Hut, Taco Bell and other fast-food franchises in about 100 countries, said the company will likely stick with VMware. Yum has already made the business case for it, estimating savings at $250,000 in the first year, Trainor said.

Some of the company's Windows servers were using as little as 1% or 2% of their processing power, Trainor said. Yum expects to have 276 virtual machines on 60 boxes by year's end, he added.

So far, many of the pain points of server sprawl that virtualization software can help to alleviate are most visible with Windows, noted Tony Iams, an analyst at Ideas International Inc. He said it's unclear whether Linux servers will encounter the same underutilization issues. 56182

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DHS: Private-Sector IT Must Focus on Cybersecurity

BY GRANT GROSS
WASHINGTON

The U.S. Department of Homeland Security last week called on corporations to make more of an effort to protect their private infrastructures.

DHS Secretary Michael Chertoff said at the InfraGard National Conference here that his ageocy will focus significant efforts on cybersecurity and oo working with private vendors to develop technologies to provide domestic security in the coming months. The InfraGard organization was started by the FBI to improve information sharing on critical infrastructure between the U.S. governmeot and private industry.

However, private companies already have good reasons to protect their own cyberinfrastructures, Chertoff said.

"There's also a very strong business case to be made for private-sector investment in security," he said. "In today's threat environment, active security measures are critical to businesses themselves, because the cost of an attack will very, very greatly outweigh the cost of protection."

Most of the U.S. critical infrastructure is controlled by computers, Chertoff noted, and most of that infrastructure — such as the nation's electrical grid and financial networks — is owned by private companies. Chertoff called for a "21st century style of organization," where government agencies work closely with private companies and their IT operations to protect important national assets. "The Department of Homeland Security does not and should not own and control all these systems," he said.

Chertoff also called on private industry to develop oew technologies that the DHS can use in areas such as border security, passenger screening systems and information sharing. "To realize the full benefits technology has to offer, we have to look outside the walls of DHS itself into the great area of private enterprise," he said.

Development Incentives

Chertoff said that one way government can provide incentives for private companies to develop cybersecurity products is to create laws that limit damages from product lawsuits.

Also at the conference, David Aucsmith, chief technology officer at Microsoft Corp.'s security business and technology unit, called on the IT industry to focus more efforts on designing cybersecurity products.

Aucsmith called for more "threat-based" software development. "We have to assume we have an adversary, and every piece of software should be written this way," he said.

Chertoff didn't discuss a May report from the Government Accountability Office that said his agency has "not fully addressed any" of its 13 key cybersecurity areas [QuickLink 54662]. But much of his talk at the InfraGard event was focused on cybersecurity, whereas most past DHS efforts have focused on physical security. **56132**

Gross is a reporter for the IDG News Service.

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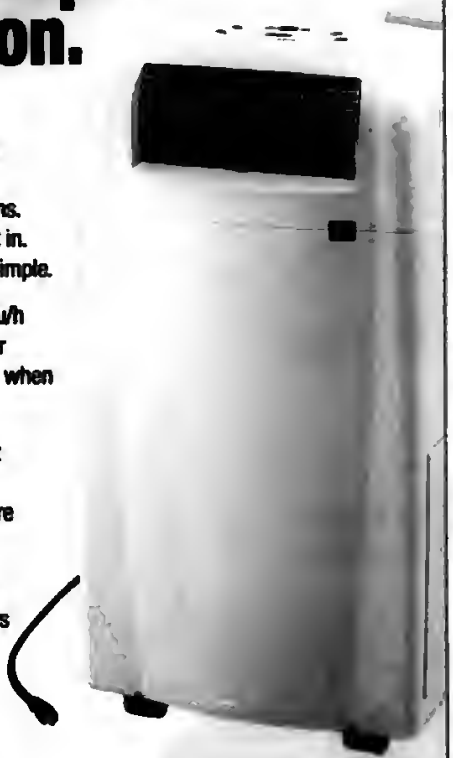

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Intel's Competitive Practices to Face More Scrutiny in South Korea

BY TOM KRAZIT

The Korea Fair Trade Commission has requested documents from Intel Corp. that pertain to the company's rebate and marketing programs, which are already under scrutiny in the U.S. and Japan, Intel revealed in its quarterly filing with the U.S. Securities and Exchange Commission last week.

Intel said it's complying with a request made in June by South Korea's market watchdog to hand over materials related to Intel's discussions with South Korean PC manufacturers.

That same month, Advanced Micro Devices Inc. filed an antitrust lawsuit against Intel in the U.S. charging that the larger chip maker is improperly using its marketing budget to exclude AMD's chips from PC and servers [QuickLink 55353].

Specifically, AMD accused Intel of cajoling vendors into using mostly Intel processors through the selective distribution of marketing funds and threats of retaliation for buying AMD chips.

The suit builds on an investigatioo by the Fair Trade Commission of Japan that found Intel allocated marketing funds to Japanese PC vendors such as Sony Corp. and Fujitsu Ltd. only if they agreed to purchase fewer processors from AMD.

Intel's marketing programs are also being looked at by the European Commission, which raided the offices of Intel and PC vendors in Europe last month as part of a "competition investigation," the commission said. **56133**

Krazit is a reporter for the IDG News Service.

Network Solutions CEO Touts Small-Business Push

BY SHARON MACHLIS

It's been a challenging road in recent years for Network Solutions, the onetime monopoly registrar of .com domain names. When that business was deregulated in 1999, the company lost a significant share of the domain-name business. In recent years, the Herndon, Va.-based company has slowly shifted focus, and last week it outlined plans for a major push into the small-business market. Chairman and CEO **Champ Mitchell** *talked about his plans for the company after the announcement.*

You're charging $35 a year for domain names while some competitors charge about one-fifth that price. How do you sustain that? We're a lot better. Network Solutions used to be the monopoly. Between a combination of abusing its customers and giving the poorest customer service on the face of the planet, they managed a first: They lost market share faster than any former monopoly in the history of the United States.

Is the new revenue mostly from Web hosting? It's a combination of online services for small businesses. That's the part of the business that's growing.

Why the surge in small-business usage? It's search. Increasingly, small businesses are becoming aware that the way to be found is online, that people have stopped going to the Yellow Pages.

What about your enterprise customers? We've got a number of those. We cherish them. They'll manage 10,000, 15,000 domains. And the truth is, no matter how good our customer service is, they don't want to call it because they've got too many domains to manage, and they're professionals. What they want is self-management tools. We work very hard to keep the best self-management tools in the business for those people. But the growth part of our business is totally different. They are very bright people who are pretty aggressive, but they aren't technologists. And we've had to change ourselves and reinvent ourselves in order to service them. We lose money with every [small-business] customer we add today, but if we keep them, we will make more money in the long run. **56131**

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DON TENNANT

A Change of Heart?

WELL, WHAT DO YOU KNOW. Hewlett-Packard announced last week that CEO Mark Hurd is going to show up at the HP Technology Forum in New Orleans next month after all. Thank goodness.

As I mentioned in a couple of recent editorials [QuickLinks 55548 and 55704], I found it troubling that Hurd wasn't planning to attend the company's inaugural unified user conference because of a "scheduling conflict."

When I asked HP to explain the change, company spokesman Ryan Donovan said HP had resolved the scheduling conflict. Donovan declined to comment on whether the change was made in response to any pressure or persuasion from outside of HP.

In the big scheme of things, it really doesn't matter what the impetus was. HP deserves credit for doing the right thing. But there's one thing that still nags at me.

It just seems incomprehensible that HP's leadership couldn't foresee what a bad idea it was not to have arranged Hurd's attendance from the get-go. Anyone with even a smidgen of PR savvy should have known that being a no-show at such a core event, especially during a critical reorganization, would present Hurd as picking up the aloofness baton from Carly Fiorina. One reader, commenting on Hurd being unable to attend his own conference but able to find the time to keynote at an Oracle conference the following week, asked: "Is Mr. Hurd truly following in the footsteps of Ms. Fiorina and contributing [to] the downfall of a once-great organization that was HP?"

My concern is that the HP corporate hierarchy is so out of touch with its users that it doesn't realize how disenchanted many of them are. Another reader recounted a story of the HP World 2001 conference, where e3000 product manager Winston Prather proclaimed that the e3000 line was an integral part of HP's vision for the future. Of course, HP announced just three months later that the line would be discontinued.

According to this reader, in January 2002, marketing program manager Alvina Nishimoto let it slip that the decision to kill the e3000 had been made before HP World, but HP's management felt that wasn't the proper time or place to announce it.

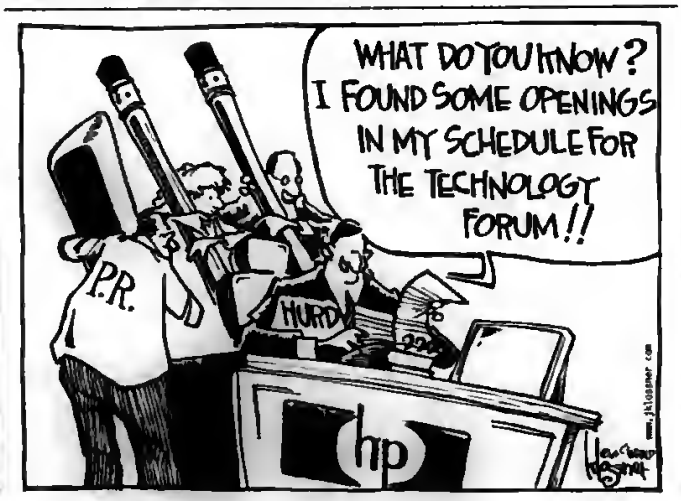
When I asked Donovan about the accuracy of that account, he dressed it up a little but really didn't refute it. "A key outcome of the planning which led to our eventual e3000 end-of-support road-map announcement was an objective to communicate the decision as clearly and promptly as was practical," Donovan wrote to me in an e-mail. "Our announcement was made as soon as we had a) a final senior management approval of the decision, and b) developed a communication and action plan that was complete and appropriate, based on the gravity of the decision. Neither of these [was] in place at the time of HP World 2001."

In any case, the damage had been done, at least to that one reader. "What all of this meant to me was that under Carly Fiorina, Hewlett-Packard had degenerated into an organization that could no longer be trusted," he said.

HP needs to rebuild the trust, and Hurd's presence at the Technology Forum will be a significant step in that direction. I don't know if getting him there involved more a change of schedules or a change of heart. I like to think it's the latter. At least it would mean he has one. Post-Fiorina, that's what HP's users need to see.

56136

Don Tennant



DAVID MOSCHELLA

IT's Problem Is Too Many Dipsticks

EVERYONE AGREES about the problem. With very few exceptions, enterprise IT organizations are drowning in low-value work. My company's research shows that roughly two-thirds of most IT staffers' time is spent on the installation, migration, patching, security and compliance work that, while clearly necessary, contributes little or no direct business value. In some organizations, the figure is closer to 90%.

Pretty much everyone also agrees on the cause of the problem. Stovepiped information systems, built for different purposes at different times, span a mix of largely incompatible hardware and software. They weren't built for today's rapidly changing business climate, and they often can't enable the innovation and agility the marketplace now requires. In some cases, the instability of years of bridging and integration work even threaten the operations of the company itself.

Oddly, there is often no one to blame for this sad and very frustrating situation, especially on the IT side of the house. Most of the current mess evolved from making what at the time seemed to be one good business decision after another.

The solution to the problem is more complicated. From a technology perspective, the adoption of service-oriented architectures (SOA) is seen as the best path forward. By defining activities as high-level services, companies can mask many underlying system incompatibilities and achieve new levels of simplicity, reuse and agility. Or at least that's how the argument goes.

In the real world, things are a bit more murky. While SOA is becoming an important way of designing and thinking about information systems, it's no silver bullet. In the short run, SOA actually increases system complexity

and requires conceptual and architectural skills that many IT departments sorely lack. Most enterprises are still experimenting, and even the leading vendors talk about a relatively slow transition, with the real momentum for SOA not building until 2007 or so.

But technology is at best half of the solution. Information system simplicity and agility will never be achieved unless businesses adopt the necessary discipline. After all, many of today's stovepiped systems were the natural offspring of stovepiped organizations and business processes. This is why so many companies have systems that include the same customer names, addresses, account numbers, dates and other data.

Consider the following analogy from the automotive industry. Many years ago, a major truck manufacturer discovered that its costs were higher than those of its competitors because it used so many more parts to build its fleet. On further analysis, it learned that it actually used eight oil dipstick designs, while its competitors used just one. Though each dipstick added design and manufacturing costs, the eight designs contributed no meaningful marketplace value. Many other parts of the truck were similarly different, but not differentiating.

The task for corporate IT managers is to first identify where the equivalents of the eight dipsticks reside and eliminate them. Until needless complexity and redundancy are significantly reduced, companies won't realize the agility that IT should enable. In the end, the rigor and power of SOA will mean little unless it's matched by equally rigorous changes in business behavior. **56044**

DAN VERTON

So You Think Your Data Is Secure?

EVERYTHING I'm about to tell you is true. And if you're a corporate executive who's serious about information security, corporate governance and compliance, you will cut this column out and nail it to your CEO's office door.

In the course of researching my latest book, *The Insider: A True Story* (Llumina Press, 2005), which traces the history of some of the most notorious insider security breaches in history, I came across a company that offers free 48-hour risk assessments based on its new insider-monitoring appliance. And while it's not my job to sell you on this product, I do want to share the insight I gained from a review of more than 50 of the real-world assessments this company conducted at some of the biggest firms and government agencies in the nation.

Companies have invested millions of dollars on security systems like firewalls, intrusion-detection devices, antivirus software and biometrics. But they've done close to nothing to ensure the security of sensitive data as it's handled by those with authorized access to it. Don't believe me? Consider these findings:

- A 48-hour risk assessment conducted in April at a top 20 financial institution intercepted a spreadsheet containing the names of 200 customers and their account numbers, account balances and tax identification numbers as it was being transmitted to a personal EarthLink e-mail account. Employees of this firm also routinely sent customers information in clear text that contained Social Security numbers, names, addresses, dates of birth, driver's license numbers, account numbers and balances. And while the firm has made considerable efforts to develop a strong privacy policy and build a secure e-mail system, only 12% of the data monitored was encrypted — a specific recommendation of the Gramm-Leach-Bliley Act.
- That same month, technicians conducted a similar risk assessment at one of the biggest IT firms in the country — a company that has a security budget to die for. In two days of monitoring, the system intercepted proprietary planning documents being e-mailed via Web mail (and yes, the company thought it had locked that down) to a direct competitor. The employee in question, along with 50 of his colleagues, had been hoping to land a new job.
- In the manufacturing sector, one of the biggest brand names in the U.S. was shocked to find what amounted to material weaknesses in its internal controls. Payroll data and hundreds of Social Security numbers were discovered leaving the network unencrypted and going to private e-mail accounts. In addition, 123 engineering and design documents had been sent to unauthorized recipients outside the network, only days before a major new product campaign was to be launched.
- Officials at various hospitals were shocked to learn that privacy-protected data on hundreds of patients was routinely leaving the network and going to unauthorized recipients. One facility recorded 2,000 violations of the Health Insurance Portability and Accountability Act in 48 hours. Another watched in horror as the names and medical information of more than 500 patients with HIV/AIDS were communicated to a private Hotmail account.

These were 48-hour snapshots of what's really happening behind the firewall. These incidents and many more like them are occurring in every sector of the economy because policies are meaningless without an enforcement mechanism. It's one thing to trust. It's quite another to verify. **56000**

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READERS' LETTERS

We Should Learn to Love Legacy Systems

I REALLY ENJOYED the frank comments concerning legacy software, especially those from Frank da Cruz ("Love That 'Legacy,' " QuickLink 55070). Anyone who's been through 20-plus years of software and hardware changes will understand that the newest and cutest is often riddled with holes and problems. Since the youngsters often ignore the experience gained in the past, many of the new problems are the same ones committed by legacy developers many years ago. It's too bad today's college graduates haven't been taught any historical facts and knowledge.

Unlike the hard sciences, which depend upon the lessons of history to make it unnecessary to reinvent old errors and problems, software engineering often forges ahead, banking upon the illusion that newer must be better. Just imagine a hardware system with today's cost-effective gigahertz cycle time and gigabytes of memory running a system as bulletproof and secure as z/OS, as flexible as z/VM, with networking control like Unix, the development power of Java and a user interface like Windows. That's what we could have had by now if the young folks had taken the time to learn from the past.

Joe Bell
Systems engineer, Fujitsu Computer Systems, Kansas City, Mo.

BY THE DEFINITION in the article, all new mainframe DB2 stored procedures written in Cobol are legacy from the day they are written. This doesn't make sense. *Legacy* is not a programming language or platform issue. A lot of DOS software written in non-Cobol languages before Windows 95 prohibits Windows systems administrators from locking down control-panel functions without rewriting code or modifying the registry. Consequently, the date for software to become legacy in a Windows environment should be 1995.

But rather than defining *legacy* by a specific date or platform, there are certain attributes that cause software to not run on new versions of operating systems and make new features of these operating systems unusable. This is what causes code to become legacy, and this is true regardless of platform or programming language.

Your definition sounds as if software without planned obsolescence is bad. To the contrary, good software design should be done with the long-term future of the business in mind. Replacing old but good business software with new software must be appropriately justified and provide a better return on investment than the old software.

Care must be taken to ensure the definition of *legacy* is appropriate and not a propaganda term sponsored by corporate marketing or generational bias.

David Anderson
Sarbanes-Oxley IT auditor, adjunct faculty, Davenport University, Caledonia, Mich., David.W.Anderson@charter.net

LET'S NOT FORGET the normal, English meaning of *legacy*: wealth generated by earlier generations that we are privileged to have at our disposal today.

Jim Gawn
Consultant, Information Services Group Inc., New Cumberland, Pa.

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Sign & Deliver

Regulatory mandates and financial losses from missed opportunities push companies to automate contract management processes.

By Kym Gilhooly

IF ANYONE UNDERSTANDS how complex contractual commitments can be, it's an IT professional. For example, in 1997, as part of a Y2k preparation, the CIO at Toyota Motor Sales U.S.A. Inc. decided it was time to shore up the IT organization's buy-side contract management processes. Like numerous IT organizations, Toyota's group was leaking cash through manual contract processes and wanted to see if re-engineering and automating them through contract management technologies would improve efficiencies and data visibility.

The effort has paid off. Toyota initially deployed an Access-based desktop contract-tracking tool from Contract Management Solutions Inc. (CMSI) and later the vendor's Web-based Contract Manager application in a hosted model. Since then, Toyota has realized about $14 million in savings, according to Sam Barton, senior contract manager at the Torrance, Calif.-based company. Based on the system's success in the IT department, its use has spread to Toyota's logistics, financial services and legal departments.

Unlike Toyota, most businesses still rely largely on manual processes for managing their contractual commitments. Not only do they fail to exploit their contracts to full benefit — missing expiration, service-level review, price review and rebate dates, or letting low-value maintenance contracts automatically renew — but they sometimes mismanage them to legal peril. Given that 60% to 80% of business-to-business deals are predicated on some kind of contract, according to Aberdeen Group Inc., contract management can't be ignored.

If the financial toll exacted by missed opportunities and underperforming commitments isn't enough, the compliance pressures brought on by

Continued on page 24

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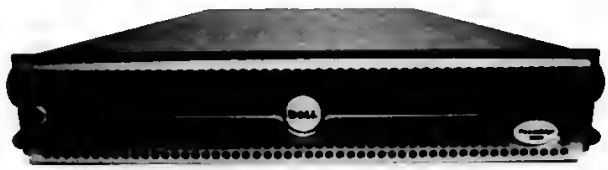

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Continued from page 21

the Sarbanes-Oxley Act and other regulatory initiatives add incentive, as do growing concerns over risk mediation due to globalization. Companies are increasingly making a broader range of their contracting processes electronic through both in-house development efforts and commercial systems. To date, however, the penetration of commercial systems is small, and the market is immature, say experts.

"Even in larger companies, Excel is still the leading business application [for contract management]," says Tim Minahan, an analyst at Aberdeen Group. He says the next couple of years will be critical to the contract management market, particularly for pure-play contract life-cycle management software providers, including DiCarta Inc., I-many Inc., Nextance Inc., Upside Software Inc. and CMSI, which was recently acquired by Atlanta-based sourcing provider Procuri Inc. Contract life-cycle management systems are designed to access and store structured and unstructured data such as pricing, pertinent dates, compliance criteria and negotiated terms. They're beginning to be integrated with ERP, CRM, content management and other data sources so that transaction data can be reconciled against contract criteria.

Meanwhile, enterprise application suite vendors such as Oracle Corp., SAP AG and Siebel Systems Inc. are adding contract management functionality as part of sourcing and procurement strategies.

"Contract management is much more than an electronic document repository; the biggest value will come from predictive event management, where careful attention is paid to the events — both date- and value-specific — that happen during the life of a contract," says analyst Andrew Kyte at Gartner Inc.

Rollover Alert

Much of Toyota's savings, says Barton, stems from better tracking of maintenance agreements that have automatic rollover clauses, some of which weren't delivering value or were for IT systems Toyota was no longer using. Since deploying CMSI's Contract Manager module, Toyota has added Deal Manager, which manages deals from inception through negotiation, and Supplier Manager for sourcing. The company is exploring the feasibility and value of interfacing the contract management system with its PeopleSoft ERP system for sharing transactional data.

The need to gain better visibility into its contracts prompted Countrywide Financial Corp. in Calabasas, Calif., to move from an approach that relied on Lotus Notes and Access toward a comprehensive contract management strategy based on technology from Nextance. Countrywide's corporate contracts group, which handles all buy-side contracts for its 45,000 employees, managed 900 contracts in 2004 and expects to handle about 1,200 this year. This growth, coupled with regulatory pressures, drove Countrywide to automate its contract processes. The project group started piloting Nextance's Intelligent Enterprise last September and expects to go live this summer, according to Richard Layne, contract manager and project manager for the implementation.

Countrywide's IT, contract management and legal departments worked closely with Nextance's professional services group to create compliant contract templates and clause libraries and to map workflows that adhere to the financial firm's approval processes.

"It's a lot of work, setting up the templates," says Layne. "Somewhere down the road, contracts will incorporate best practices so they will be self-sufficient, taking into account variables as well as including conditional clauses." He says Countrywide is experiencing typical challenges as it integrates Nextance with its new Oracle/PeopleSoft ERP system.

"We want to make sure, for example, that accounts payable doesn't overpay or double-pay on a contract; by interfacing our ERP into our contract management system, we can avoid these situations," says Layne.

With the ERP integration, Countrywide will be able to automate a critical element of its 10-Q reporting — determining outstanding liability on open contractual commitments — rather than reconciling each contract manually. The company is also interfacing Intelligent Enterprise to its entire employee contact list and delineating contract approval and spending authority so that staffers access, create and approve contracts based on permission rules. Plans call for integrating the product into Countrywide's asset management module so it can better track acquisition and depreciation of IT assets.

St. Louis-based BJC HealthCare is also improving its contract management processes as part of an overall supply chain optimization effort across its network of hospitals. For BJC's centralized contracting group, IT has developed an in-house contract repository based on WebSphere and an Oracle database, says Kraig Butts, a project manager for information systems. The repository integrates with BJC's GEAC mainframe financial systems and with a front-end requisitioning system accessed through Global Healthcare Exchange LLC's (GHX) electronic business-to-business exchange. When a new contract is created, all pertinent information — including pricing, units of measure, manufacturer ID numbers, terms and expiration dates — is uploaded from the repository to the GEAC system, and an updated item master is transmitted to the GHX exchange. BJC replicates the item master to GHX daily, so stakeholders can log in for up-to-date reviews.

About 15 months into the project, BJC has more than 30% of the contracts related to its supply spend loaded into the contract repository, says Jim Gleick, director of supply strategy. BJC is trying to use the electronic process for all new contracts and is converting existing contracts as they make sense.

Like other companies moving to optimize supply and contract processes, BJC wants to better tie transaction data to its contract data so it can automatically reconcile discrepancies and ensure accuracy. Currently, it's manually pulling requisition and purchase data out of the GEAC system each month to compare the item master against the contract database. The company is also taking downloads from the financials system and the repository and putting them into an Access database for reporting purposes.

"We're happy that we're getting the data into users' hands and they're able to create various reports, but the process is still too complex and we need to automate it," says Butts. He says the company plans to create a data warehouse with business intelligence tools built on top for easier reporting and analytics.

The conversion has taken a lot of staffing, Gleick says, but he believes the efficiencies gained are critical to improving business operations and, more importantly, patient safety. "Our goal is that by the end of 2006, 87% of all our purchasing volume will be connected to electronic contracts," he says. **55901**

Buying OR Selling?

Though contract management vendors typically have products for both buy- and sell-side situations, says Gartner analyst Andrew Kyte, it's important that businesses understand that each function demands a different deployment approach. "Obviously, to be fully in control, a business needs to be managing all of its contracts," says Kyte. "However, each [side] demands separate projects because there are differences in systems integration, in users, in sponsorship. It's important that businesses initiate their contract management activity in an area they can effectively control and not try to simultaneously handle contracts for both the buy and sell sides."

It's the sponsorship question that often causes the biggest hurdle to contract-process improvements, according to Tim Cummins, president of the International Association for Contract and Commercial Management. "Eighty percent of contracts deal with business issues rather than legal issues, and those business commitments come from many disparate owners. There's finance, IT, HR and external factors like regulatory compliance and accounting regulations," says Cummins. But, he says, although a contract is the result of the work of many stakeholders, all of whom have specific requirements, nobody has overall accountability for its maintenance and management.

Businesses that opt to move forward with contract management initiatives often do so in the procurement area, specifically in IT procurement. "It makes a lot of sense for CIOs to be the initial sponsors for adoption of contract management," Kyte says. The number of contracts is smaller than in other areas, and people in IT procurement are used to working closely with the IT organization on processes and integration issues, he adds.

– Kym Gilhooly

Gilhooly is a freelance writer in Falmouth, Maine. You can reach her at kymg@maine.rr.com.

Continued from page 21

the Sarbanes-Oxley Act and other regulatory initiatives add incentive, as do growing concerns over risk mediation due to globalization. Companies are increasingly making a broader range of their contracting processes electronic through both in-house development efforts and commercial systems. To date, however, the penetration of commercial systems is small, and the market is immature, say experts.

"Even in larger companies, Excel is still the leading business application [for contract management]," says Tim Minahan, an analyst at Aberdeen Group. He says the next couple of years will be critical to the contract management market, particularly for pure-play contract life-cycle management software providers, including DiCarta Inc., I-many Inc., Nextance Inc., Upside Software Inc. and CMSI, which was recently acquired by Atlanta-based sourcing provider Procuri Inc. Contract life-cycle management systems are designed to access and store structured and unstructured data such as pricing, pertinent dates, compliance criteria and negotiated terms. They're beginning to be integrated with ERP, CRM, content management and other data sources so that transaction data can be reconciled against contract criteria.

Meanwhile, enterprise application suite vendors such as Oracle Corp., SAP AG and Siebel Systems Inc. are adding contract management functionality as part of sourcing and procurement strategies.

"Contract management is much more than an electronic document repository; the biggest value will come from predictive event management, where careful attention is paid to the events — both date- and value-specific — that happen during the life of a contract," says analyst Andrew Kyte at Gartner Inc.

Rollover Alert

Much of Toyota's savings, says Barton, stems from better tracking of maintenance agreements that have automatic rollover clauses, some of which weren't delivering value or were for IT systems Toyota was no longer using. Since deploying CMSI's Contract Manager module, Toyota has added Deal Manager, which manages deals from inception through negotiation, and Supplier Manager for sourcing. The company is exploring the feasibility and value of interfacing the contract management system with its PeopleSoft ERP system for sharing transactional data.

The need to gain better visibility into its contracts prompted Countrywide Financial Corp. in Calabasas, Calif., to move from an approach that relied on Lotus Notes and Access toward a comprehensive contract management strategy based on technology from Nextance. Countrywide's corporate contracts group, which handles all buy-side contracts for its 45,000 employees, managed 900 contracts in 2004 and expects to handle about 1,200 this year. This growth, coupled with regulatory pressures, drove Countrywide to automate its contract processes. The project group started piloting Nextance's Intelligent Enterprise last September and expects to go live this summer, according to Richard Layne, contract manager and project manager for the implementation.

Countrywide's IT, contract management and legal departments worked closely with Nextance's professional services group to create compliant contract templates and clause libraries and to map workflows that adhere to the financial firm's approval processes.

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BRIEFS

Avaya Launches Web Services Portal

■ Avaya Inc. has announced its Avaya Voice Portal software for speech-enabling Web services across large companies. It uses open-standards-based Red Hat Linux Enterprise 3.0. Dialog Designer, a development tool for creating applications, ships with the product. Available in November, Avaya Voice Portal will be priced at $900 per port.

Platform Computing Unveils Orchestrator

■ Platform Computing Inc. has developed an automated, policy-driven virtual infrastructure manager. Available this fall, Platform VM Orchestrator will provide dynamic balancing and control of enterprise resources, autoprovisioning, and support for heterogeneous environments, the company said. Pricing wasn't available.

Business Objects Supports Linux

■ Business Objects SA has extended its business intelligence platform to support Linux. BusinessObjects XI now supports the Red Hat Enterprise Linux and SUSE Linux enterprise server systems, the company said. The platform is already available on Windows and Unix. BusinessObjects XI on Linux includes guided installation and Web-based management.

IBM Adds Grid to WebSphere Stack

■ IBM has unveiled WebSphere Extended Deployment 6.0, which is designed to combine the capabilities of autonomic and grid computing to maximize the effectiveness of the WebSphere application infrastructure stack, IBM said. The software will support the deployment of a high-performance environment for executing both online and long-running applications in WebSphere. It will be generally available Aug. 30.

JIAN ZHEN

IT Needs Help Finding Root Causes

EVER STAY AWAKE at night wondering about the cost of network downtime? In 2004, Infonetics Research put that figure at 3.6% of a company's annual revenue. After studying more than 80 large corporations, Infonetics found that companies experience an average of 501 hours of network downtime per year. That number translated into millions of dollars in lost productivity and revenue, and it hasn't gotten any better in the intervening months.

On top of the money they've lost, companies invest millions of dollars each year in various technologies to attempt to solve IT infrastructure problems more quickly. They are, however, no closer to the Holy Grail of automated root-cause analysis and problem resolution.

In order to understand why that's the case, it's necessary to understand the five steps in the IT problem management process.

1. Detection. The ability to know what's happening in your infrastructure is a crucial first step in managing problems.

Most of the new technologies we have seen in this area in the past five to 10 years have been designed for detection. Network management systems such as IBM Tivoli, HP OpenView, CA Unicenter and many others were first designed to monitor the enterprise infrastructure by polling network devices and servers periodically. If the polling fails a predetermined number of times, a problem is detected, and an alert is sent to the administrators. In the security world, network and host intrusion-detection systems have been developed to identify problems on the network and servers. None of those technologies, however, can tell you where the problem is or what caused it.

2. Identification. After a problem has been detected, IT administrators must spend a lot of their time identifying where it actually occurred. These IT administrators either use the most basic network tools, such as ping and traceroute, simply rely on domain knowledge of their own networks or analyze network traffic using sniffers to locate the problem.

Products such as EMC Smarts are designed to accelerate identification. Smarts starts by mapping out an infrastructure using various automated tools as well as human knowledge. The mapping will identify, for example, which switch ports are connected or which servers are behind an individual router or switch. Once the mapping is complete, Smarts uses its proprietary Codebook Correlation Technology, SNMP traps and logs messages from routers, switches and servers to identify where the problem might have occurred.

3. Determination. Even though some of these newer technologies help IT administrators identify where the problem might be, they are still very limited in determining the actual root cause. Why did my Web server go down? Was it caused by memory corruption? Was it the result of a security exploit? Was it misconfigured? You get the idea.

There is no doubt that problem determination is the most difficult stage of the process. The majority of troubleshooting time is spent determining exactly what's causing the problem. Even today, IT administrators must manually perform root-cause or forensic analysis by digging through mountains of log files or analyzing seas of traffic packets. No technologies have been developed to help IT administrators automate the determination process.

4. Resolution. Once the problem has been identified and root cause has been determined, IT administrators can usually fix the problem quickly, though there are obviously those that require long-term resolution efforts.

Some vendors have developed technologies that jump from problem identification to resolution, skipping the determination stage. These automated resolutions can range from simply blocking an offending IP by modifying router, switch or firewall configurations to executing a program or script to perform much more complex instructions. This can be extremely dangerous, because mistakes can make the network or infrastructure unavailable to legitimate users. Intruders may also exploit these automated resolution mechanisms to perform denial-of-service attacks.

5. Reflection. The postmortem is one of the most important stages in the process. IT administrators should take time to document the first four steps in the process, determine how to prevent a recurrence of the problem, identify and resolve other similar problems, and review the whole process to see how it can be improved.

Even without reflection, we can see that technology isn't solving the problem management process. Most tools are designed to help with detection, and a few help locate problems, but none has been developed to automate the process of determining the root cause. If we see new technologies in this area in the near future, the lives of IT administrators will suddenly become much easier. 50047

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- Meet potential partners
- Converge with the industry-wide analysts and the press community

Conference At-a-Glance *(subject to change)*

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MONDAY, SEPTEMBER 26

Registration Open 10:00am - 8:00pm

12:45pm – 5:30pm Pre-Conference Golf Outing *Sponsored by:* LAWSON
7:00pm – 9:00pm Welcome Networking Reception *Sponsored by:* COGNOS

TUESDAY, SEPTEMBER 27

Registration Open 7:00am - 8:00pm

7:00am – 8:00am Breakfast
8:00am – 8:15am Welcome and Opening Remarks
8:15am – 9:00am [redacted] **End-User Case Study: Driving Business Intelligence Acceptance and Adoption**
Brian Hickie, Vice President, Business Intelligence, McKesson Corporation
9:00am – 9:30am [redacted] **Industry Leader Presentation**
Rob Ashe, President and Chief Executive Officer, Cognos Inc.
9:30am – 10:15am [redacted] **End-User Panel Discussion: Smarter BI: Enabling Better Business Decisions**
Moderated by Julia King, Executive Editor, Events and National Correspondent, Computerworld
10:30am – 12:10pm **Concurrent End User Case Studies**
12:15pm – 1:45pm Networking Luncheon
1:45pm – 2:15pm [redacted] **End-User Case Study: How to Use "Incremental Transformation" to Promote Business Intelligence and Business Analytics Projects**
Barbara Kindel, Vice President, IS Solutions Engineering, Calpine Corporation

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TUESDAY, SEPTEMBER 27 *continued*

Registration Open 7:00am - 8:00pm

2:15pm – 2:45pm	**End-User Case Study: Using Business Intelligence to Support Asset & Expense Management Initiatives** James A. Bell, General Manager, Operating Services, Union Pacific Railroad
2:45pm – 3:15pm	**End-User Case Study: New Skin for the old Cat or Building Better Business Intelligence Mousetraps** Jon Farrar, Vice President, Predictive Modeling, Union Bank of California
3:30pm – 4:00pm	**End-User Case Study** Stacy J. Smith, Vice President and Chief Information Officer, Intel Corporation
4:00pm – 4:30pm	**End-User Case Study: Turning BI Inside Out – Delivering Actionable Information to Your Customers, Partners, and Clients** Andy George, Senior Vice President, Technology, ProfitLine, Inc.
4:30pm – 5:00pm	**End-User Case Study:** **Remember the "Business" in Business Intelligence: Working Together to Plan, Provide, Build and Manage the BI Infrastructure** Tony Fuller, Vice President and Chief Information Officer, Rent-A-Center
5:15pm – 8:00pm	Networking Lounge and Expo with Dinner

WEDNESDAY, SEPTEMBER 28

Registration Open 7:30am - 7:00pm

7:00am – 8:00am	Breakfast
8:00am – 8:15am	**Opening Remarks**
8:15am – 9:00am	**Opening Luminary Presentation**
9:00am – 9:30am	**End-User Case Study: Managing and Enhancing BI Applications and Infrastructure to Create Business Value** Edward Suda, Vice President/Director of Business Intelligence, WFS Financial
9:30am – 10:15am	**CTO Insights Panel Discussion** Moderated by Keith Gile, Principal Analyst, Forrester Research
10:30am – 12:10pm	**Concurrent End User Case Studies**
12:15pm – 1:45pm	Networking Lounge and Expo with Lunch
1:45pm – 2:15pm	**End-User Case Study: Using Web Analytics in Business Intelligence** Robert J. Gray, VP, Infrastructure Metrics, Bank of America
2:15pm – 2:45pm	**End-User Case Study: Moving BI from Batch Analytics to a Customer Focused Experience** Barry Vandevier, Chief Technology Officer, Travelocity
2:45pm – 3:15pm	**End-User Case Study: Process Driven Analytics** James Archuleta, Director, Customer Relationship Management, Alaska Airlines
3:30pm – 5:00pm	**End-User Case Studies**
5:00pm – 6:00pm	**"Best Practices" Awards Ceremony**
6:00pm – 8:00pm	Gala Evening with Dinner & Entertainment

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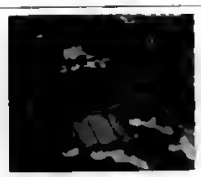

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- ☐ Automobile
- ☐ Computer, Communications or Peripheral Equipment or Software Manufacturing
- ☐ Agriculture/Forestry/Fisheries
- ☐ Other

Your Job Title/Function:
- ☐ CEO/COO/CSO/Chairman/President
- ☐ CIO/CTO
- ☐ VP/GM/Director
- ☐ IS/IT Director/Manager
- ☐ Other IS/IT Department Manager/Supervisor
- ☐ Corporate/Business Staff
- ☐ Other Corporate/Business Manager
- ☐ Consultant (Internal) or Other

The one item that best describes your involvement in the IT purchase process:
- ☐ Authorize the purchase
- ☐ Approve the budget
- ☐ Initiate the purchase
- ☐ Evaluate/recommend products, brands, vendors
- ☐ Identify/establish need to purchase
- ☐ All of the above

Number of employees in your entire organization (ALL locations):
- ☐ Over 10,000
- ☐ 5,000 - 9,999
- ☐ 1,000 - 4,999
- ☐ 500 - 999
- ☐ Less than 500

What is the estimated annual revenue of your entire organization?
- ☐ Over $10 Billion
- ☐ $1 Billion - $9.9 Billion
- ☐ $500 Million - $999 Million
- ☐ $100 Million - $499 Million
- ☐ Less than $100 Million

What is your organization's annual IT/IS budget for all IT/IS products?
- ☐ Over $1 Billion
- ☐ $500 Million - $999 Million
- ☐ $100 Million - $499 Million
- ☐ $10 Million - $99 Million
- ☐ $1 Million - $9.9 Million
- ☐ Less than $1 Million

What is your organization's primary vendor for BI/data management solutions?
- ☐ SAS
- ☐ Cognos
- ☐ Business Objects
- ☐ Oracle
- ☐ Hyperion
- ☐ SAP
- ☐ PeopleSoft
- ☐ MicroStrategy
- ☐ Siebel
- ☐ Informatica
- ☐ Microsoft
- ☐ Information Builders
- ☐ Other

What is your organization's most mission critical project within BI/data management this year?
- ☐ Creating the vision and strategy/ Analyzing ROI
- ☐ Planning, designing, building the BI infrastructure
- ☐ Building/managing the operational information stores
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PROFIT

TECHNOLOGY DOESN'T HAVE TO BE A MONEY PIT. HERE ARE SOME IT GROUPS THAT BRING IN THE BUCKS.

DSC LOGISTICS INC. has a line item in its budget that few companies share: IT department revenue. "It's not a huge amount of money," says CIO Jon Fieldman, "but it's something; it's measurable."

Fieldman has a point: The dollar figure isn't what's remarkable; it's the fact that his department brings in money at all.

Most organizations count their IT departments as cost centers, but some CIOs have had success selling their technology or services to external customers. As a result, they bring money into their organizations. It's a business model that could change how companies view IT.

"It will never be a dominant part of what companies can do, but in the right circumstances, it is something they will do," says John Karnatz, group director at Technology Services Development Group in Bartlett, Ill.

Executives caution against envisioning too many dollar signs, though. They agree that extra revenue is secondary to improvements in products and services for internal and external clients that are made possible by the additional money IT brings in.

For a thin-margin business such as that of DSC Logistics, Fieldman's accomplishment "is significant to our bottom line," says Chief Financial Officer JoAnn Lilek. "But the bigger thing is it's of value for our customers." DSC Logistics provides national supply chain management to companies such as Kimberly-Clark Corp., Georgia-Pacific Corp. and Kellogg Co.

DCS Logistics' business model always included some IT services to customers, but Fieldman says he noticed shortly after starting at the Des Plaines, Ill.-based company in 1998 that some requests went beyond standard services. "So over time, we slowly began to put in a framework, setting up in our contracts that there were base IT services and supplemental IT services at an additional rate," he says.

Fieldman remembers one company that wanted to simplify how it put holds on warehoused products. His IT staff built customized software for that customer based on a form that the customer had been using internally.

Fees for such services vary, taking into account the work involved for each project, Fieldman says. He won't disclose how much money his IT department makes but says the investment required to create a revenue-generating shop was minimal.

"The main thing that changed is how people think," Fieldman explains, saying he worked with people in

sales, customer service and the executive suite to help them understand the market for IT services. "The paradox is when you charge people, they really appreciate the value," he observes. "When it's free, there's a risk that people will perceive it's not valuable."

Insourcing

Customer needs also transformed Ellen Barry's IT department. Barry is CIO of the Metropolitan Pier and Exposition Authority, a public entity that operates McCormick Place and Navy Pier in Chicago. When she started the job in 2000, an outsourcer provided technical services to groups using the tourism and convention spaces. Barry thought her staff could do better. "I wanted quality to be primary," she says.

Barry says she wouldn't have pursued the idea if she thought the venture would have lost money. She initially figured she could break even. But when the outsourced provider fought her attempts to take over the services, she realized there was money at stake. "I clicked my fingers and said, 'I'm on the right track,' " she recalls.

To make her plan work, Barry had to add both products and people to her department. She now has 500 miles of fiber running among the various facilities. This includes fiber to all the rooms and conference facilities in the Hyatt Regency McCormick Place, which Global Hyatt Corp. manages but the city owns. The fiber also connects Navy Pier, so smaller shows and exhibits there have the same technical capabilities.

Barry hired eight people, all technical folks who work well with clients under tight deadlines. These new hires joined the 20-plus who manage the authority's internal systems.

This venture didn't come cheap: It cost $1.7 million to implement, Barry says. She wouldn't disclose how much her Internet/technical services group brings in annually, but she says she recouped her initial investment within two years. Like Fieldman, Barry says the value doesn't necessarily rest with the dollars brought in. "It's part of what I consider my competitive advantage," she says.

Others agree. "By providing these kinds of services, she's not only going to maintain her current clients; she's going to attract new customers," says Joe Mambretti, director of the International Center for Advanced Internet Research at Northwestern University. Mambretti says he's impressed by what Barry's IT department has to offer. He points out that McCormick Place in early June hosted Supercomm, the world's largest annual all-inclusive exhibition and conference for communications service providers and private network managers. The event used many advanced technologies, such as webcasting and high-definition broadcasting over IP networks.

Not Easy

Despite successes such as Barry's, revenue-generating IT departments aren't common, experts say.

Karnatz studied the trend as part of The ProfIT Research Initiative, a joint venture of Northern Illinois University and Technology Services Development Group.

Karnatz's study identified some of the challenges of turning an IT department into a revenue-generating operation. He says most executives aren't fully prepared for the organizational shift it requires. They don't know how to gather and account for revenue, set up contracts and provide customer service to external customers.

The study also identified a continuum, Karnatz says. On one end were IT groups that were entirely internally focused; on the other end were IT departments operating as profit and loss centers. In between were departments becoming more strategic and supportive, moving toward a quasi-commercial model. "People aren't so much looking to cover the cost of the IT infrastructure but looking to sustain the cost of the activity," he says.

That's exactly what Randy Smith discovered. As chief technology officer and associate professor of business administration at the University of Virginia's Darden School of Business in Charlottesville, Smith helped develop a suite of student-life applications. When officials demonstrated one of the applications to other business school IT executives, they discovered a market for their homegrown systems.

Smith didn't jump right in, though. He and other Darden leaders considered whether they would be selling away a competitive advantage. But Smith says he learned from American Airlines Inc., which in the 1950s developed SABRE, or Semi-Automated Business Research Environment, then the largest electronic data-processing system for business use. In the 1970s, American Airlines started marketing SABRE to travel agencies, and in the 1990s spun it off as its own company.

The Darden School followed a similar route, and in 1998, it licensed the first application under the name Darden Solutions. Smith says he sees this arrangement more as a consortium. Schools pay Darden an initial licensing fee as well as annual maintenance fees. In return, the IT staff — Darden Solutions employs 15 developers who are separate from Darden's internal IT workers — works on installations, configurations, a help desk and user conferences. Darden Solutions also provides regular system improvements and worked on a $3 million investment in a second-generation product.

Today, 17 academic institutions, including 15 of the country's top 30 business schools, use the product. Smith won't disclose how much money the agreements generate, but he says that Darden wouldn't have such high-quality applications without that extra cash.

"We decided we could have the best student systems by partnering this way," he says. "This has been a successful venture, and it has value. And as we move forward, the university and school will continue to benefit."

55855

Pratt is a Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*

POWERFUL PARTNERSHIPS

Read how Wharton School CIO Deirdre Woods has leveraged partnerships for profit

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SOME IDEAS JUST AREN'T WORTH IT

DEIRDRE WOODS, associate dean and CIO at The Wharton School of the University of Pennsylvania, oversees two initiatives that generate revenue.

Wharton Research Data Services, or WRDS, provides faculty with instant access to databases in the fields of finance, accounting, banking, economics, management, marketing and public policy. More than 120 institutions pay $35,000 each in subscription fees for WRDS, which includes the interface and high-level technical support.

Wharton also teamed up with educational publisher Pearson Addison Wesley to offer experiential-based learning applications to other schools. The Online Trading and Investment Simulator (OTIS), which allows students to simulate buying and selling equities using real-time data, debuted in September 2004. The next software simulation is scheduled for 2006.

Woods says 70 schools use OTIS, at a cost of $19.95 per student. Wharton and the publisher share the profits fifty-fifty.

These ventures bring both money and greater name recognition to Wharton, Woods says. Still, she knows not to jump into every possible moneymaking opportunity.

Wharton officials had considered marketing two other products – the award-winning Spike student intranet and a collaborative learning software – but ditched the ideas. Woods says officials realized both were too customized to have broad appeal.

Such introspection is essential when deciding whether to make IT a revenue-generating operation, says John Karnatz, group director at Technology Services Development Group. If developing and marketing a product is far from the company's core strengths, the venture could suck up more resources than it generates.

"It's not just about making a few bucks," Karnatz says. "It's about aligning with the company's strategic visions."

– Mary K. Pratt

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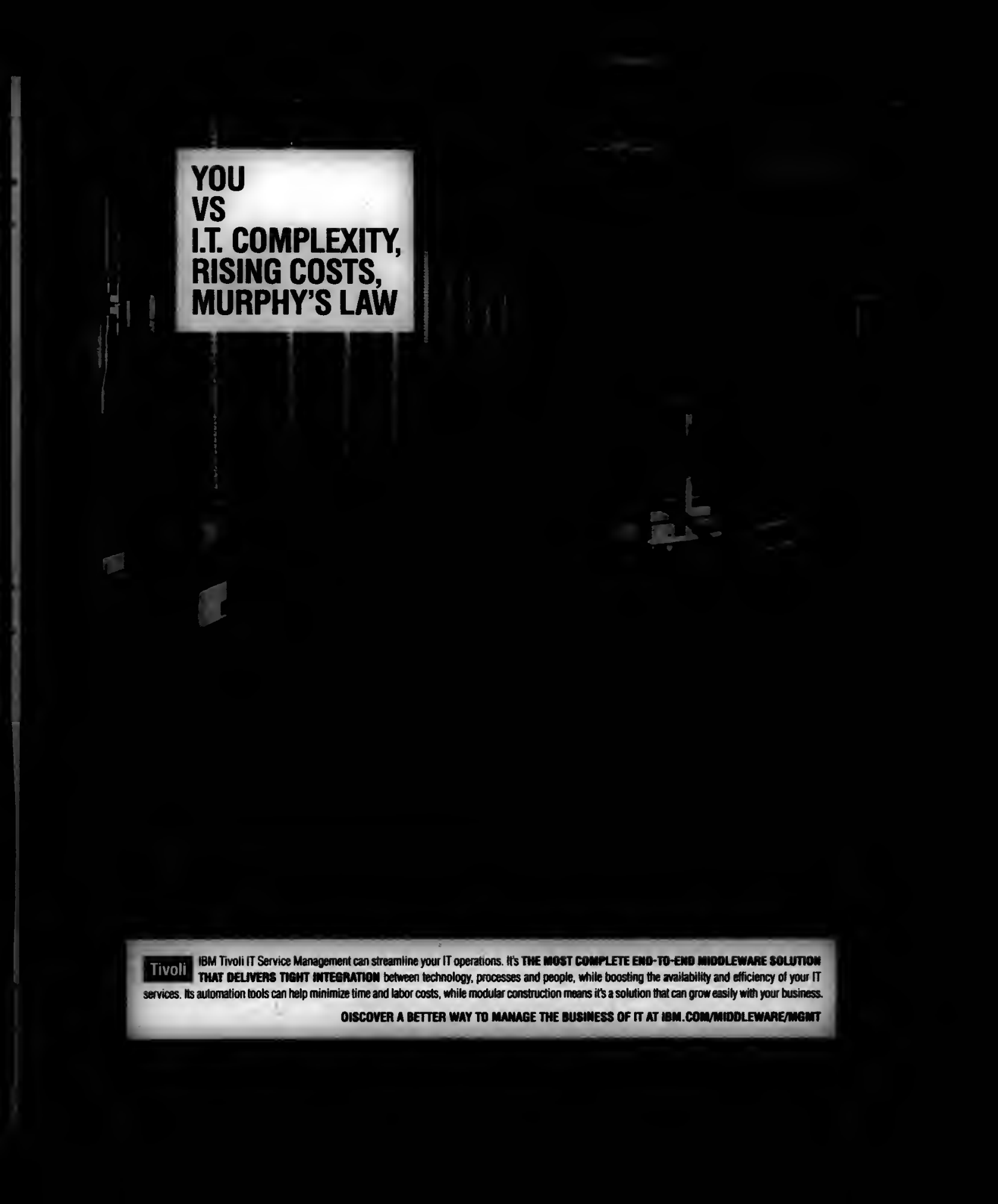
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BARBARA GOMOLSKI

Take Some Credit for Worker Productivity

THE SUBJECT of improved worker productivity in the context of IT investments always makes me wince a bit. We all know that workers and companies are much more productive because of IT. (Just think back to the days before e-mail and the Internet.) Still, it's getting harder to sell IT investments based on the promise of increased worker productivity.

In the old days, productivity improvements were easy to see. Perhaps we had 10 clerks pushing paper in order to process corporate expense reports. Then we deployed an IT system and allowed employees to create expense reports electronically. Rather suddenly, we needed only half of those clerks to complete the process. When IT replaced paper and manual labor, the productivity boosts of discrete IT investments were pretty obvious.

Fast-forward to today. Now, we are likely to be optimizing business processes that are already IT-enabled. Or we are deploying additional IT capabilities to knowledge workers who already have an assortment of "personal productivity" applications on their desks. So, let's say we provide these knowledge workers with a new app that's estimated to give them back 30 minutes of time per day. Do those 30 minutes really result in improved worker productivity? Or are those 30 minutes that the worker will now spend reading e-mail be previously had to ignore? You see where I'm going with this: It's simply harder to see the benefits of discrete IT investments on worker productivity these days.

Make no mistake. I'm not trying to say that IT doesn't result in improved worker productivity. It most certainly does. In fact, a recent article in *The Wall Street Journal* titled "Manufacturing Sector Shows Unexpected Vigor" (July 18) reported that production output from the nation's manufacturing sector is soaring, even as payrolls in that industry are shrinking. Simply put, the U.S. manufacturing sector is producing more stuff with fewer people. Certainly, technology that's deployed on the factory floor is part of this equation.

So, what do we do about the IT/productivity conundrum? If we ignore the improved productivity that results from IT, we're overlooking a key benefit. But how can we broach the subject in a way that doesn't require a Ph.D. in economics?

I think the problem lies in trying to equate individual IT investments with improved worker productivity. That's difficult (perhaps impossible), and most CIOs have neither the time nor the inclination to try. I believe that a more obvious and more meaningful way to get a handle on the benefits of IT is to look at how it affects the overall efficiency of the company.

Here's a simple exercise you might consider to get the conversation about worker productivity going in your organization.

1. Calculate the revenue per employee generated by your organization by dividing the company's gross revenue by the number of employees. If it is privately held, you can usually obtain revenue estimates from *www.hoovers.com*. If you work in a not-for-profit or public-sector organization, use the overall operating budget of the organization as a proxy for revenue. The number you obtain is essentially a measure of your organization's productivity (the amount of revenue produced per employee). You can now track this number over time and see how it changes when certain IT investments are made.

2. Calculate the average revenue per employee for your competitors (or counterpart organizations). This will allow you to compare your company's productivity to theirs.

This simple exercise can be very telling. For example, I once worked with a pharmaceutical firm whose executives were alarmed because it was spending nearly $30,000 per employee per year on IT. This was almost three times the industry average. When we calculated the firm's revenue per employee, however, it was hovering around $1 million per year — also about three times the industry average. While this analysis wasn't 100% conclusive, it suggested that the firm was significantly more productive than its peers and that it had achieved that boost by investing more money in IT.

If you haven't already picked up the worker productivity issue, it's time to start. Companies are seeing big gains in worker productivity, and that's due, at least in part, to IT. So now that you've got a way to measure it, step up and take some credit. 55783

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Adapting to SOA
An emphasis on reuse is changing the way developers work. At Sabre Holdings, "most developers would rather develop from scratch," says Mike Missler, program manager of the reuse initiative. PAGE 34

Global Workgroups
It takes a combination of tools and processes to enable long-distance collaboration among distributed application development teams. PAGE 36

OPINION
A Soft Touch
Getting developers to adopt a service-oriented architecture mind-set isn't easy, says Mark Hall. It'll take a soft touch to convince some. PAGE 42

EDITOR'S NOTE

TEN YEARS AGO, programming wasn't easy, but the task was relatively straightforward: You wrote code to meet the requirements document, the little bit of collaboration you did was with IT people just down the hall, and regulators hadn't discovered IT process controls. Now, as the Disney song says, it's a whole new world. In this special report, we've identified three megatrends that are dramatically changing the way application development teams work.

1. The emergence of the service-oriented architecture requires a lot more attention to code reuse and closer ties to the business. You've heard it before, but this time it's for real. "The biggest chore has been getting people to have a reuse mind-set," says Mike Missler, program manager of the reuse initiative at Sabre Holdings.

ONLINE

2. Team members may be hundreds or thousands of miles away. You get the best talent, wherever it resides, but managing the project can be a nightmare without the right tools and processes in place.

3. Regulators, auditors, testers and business managers are pulling developers in different directions. New compliance work is making IT projects take 15% to 20% longer, while the business managers fret about "speed to market."

In the following articles, you'll learn how IT leaders are dealing with these new pressures on the application development group. Hopefully the useful insights will drive that saccharine Disney song out of your head. **55768**

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Developers are dealing with SOA, global collaborators and multiple taskmasters.

The New World OF APPLICATION DEVELOPMENT

Adapting To SOA

An emphasis on reuse is changing the way developers work. By Heather Havenstein

AS PART OF its 2-year-old effort to move legacy mainframe systems to a service-oriented architecture (SOA), Sabre Holdings Corp. in May began dispatching "reuse advocates" to work closely with all of its development groups. The goal was to encourage developers to tap the travel company's growing registry of services for new projects.

These advocates are typically senior quality assurance or other technical leads identified by their managers as people most likely to influence developers to adapt to changes inherent in building an SOA.

"The biggest chore has been getting people to have a reuse mind-set," says Mike Missler, program manager of the reuse initiative at the Southlake, Texas-based company. "Most developers would rather develop from scratch. There is a lot of resistance."

However, he adds, Sabre's efforts are gaining traction, bolstered by advocates who provide developers with examples of reusable business logic and

encourage them to add their own work to the registry.

Missler meets biweekly with the reuse advocates to gain feedback on their work with developers; he also presents awards to developers who have contributed reusable business logic and other assets to the registry.

Sabre has also engaged its development project managers to tout the reuse of application components tied together as services, Missler adds. In addition, the requirements phase of development projects now includes an assessment of opportunities to reuse components of the project.

Over 70% of companies with more than 20,000 employees are adopting SOAs, according to an April report by Forrester Research Inc. As SOAs take hold in many large enterprises, developers are faced with a paradigm shift away from traditional programming. No longer can they develop one-off applications from scratch to be abandoned after they successfully make their way through testing and quality assurance.

Instead, developers must adapt to more closely aligning IT with the business. Instead of writing new code for an isolated application, developers now often must link — and sometimes make daily changes to — existing business processes that may live in applications from disparate lines of business. SOAs, by default, require developers to work with the business as they develop these new composite applications — loosely coupled applications that can be tied together, then uncoupled as needed and reused across the enterprise.

Indeed, SOAs are the catalyst for true alignment between business and IT, says Forrester analyst Randy Heffner, as IT moves out of the realm of "order takers" to a more collaborative relationship with the business.

"IT has typically measured itself from 'Did we deliver on time and on spec and on budget?' You can do all those things and not deliver business value," Heffner says. "With services, we have finally brought the design paradigm up to a level where IT and the business can talk the same language. The business-IT dialogue starts with the business problem and not with the requirements document."

Changing the Mind-set

The move toward SOAs requires a "reorientation of the thought process" as opposed to new skills for developers, says Matt Miszewski, CIO for the state of Wisconsin. The state is now overhauling its main portal, with a mandate not to deploy any objects that can't be reused within other services, he says.

"Instead of developing a line-of-business application for the Department of Revenue, I am developing a system, but it will be made up of these components that can be reused," explains Miszewski. "They are coding objects instead of whole systems."

The state has eased this shift with top executive buy-in, he says. All the deputy secretaries meet regularly to identify where they can create services — like a service to process credit cards — to be used across the state's 50-plus agencies. Miszewski also has regular briefings with the development staffers, which has helped them embrace the SOA philosophy. "Developers are excited by this. They can concentrate on adding pure value, not just building another shopping cart," he says.

Waregem, Belgium-based TVH Group, which manufactures and services forklifts, has been moving toward an SOA since the late 1990s. With messaging technology from Sonic Software Corp. and software from Progress Software Corp., TVH has used an SOA to integrate internal applications and link with external partners, says Kalman Tiboldi, TVH's information and communications technology manager.

As part of that effort, the company split its IT department in 2001. Support staffers for networking and hardware were kept in IT, while developers were dispatched to lines of business, including supply chain, warehouse and customer relationship groups, to begin working directly with business people.

"The IT point of view was needed to implement flexibility — to dynamically change business rules," Tiboldi says. "We are getting the business flowchart from the business people — step by step how the job has to be done. IT is involved daily to change the process if needed. You are able to dynamically and flexibly change your business model to the daily needs of the business."

Map to the Future

Danske Bank AB in Copenhagen has been operating a homegrown SOA since 2000. Today, it has about 2,000 reusable functions available for developers and 100 to 150 composite applications in production, says Claus Torp Jensen, the bank's vice president of architecture and development strategy.

Technology aside, Torp Jensen says that one of the bank's biggest challenges has been to help developers find the best reusable functions for business requirements. The bank devised a development model that includes business process management modeling to identify the best solution for the business and a parallel process to analyze possible future applications of the services built for a particular project.

The result is a services map — a layout of the building blocks the company expects to be able to leverage in future projects. For example, architects and developers could refer back to the map containing a service for verifying the identity of customers and then add the ability to check the identity of a partner to that service, instead of developing a new one, Torp Jensen says.

"I can give a programming team a set of descriptive models and tell them, 'This is what you are going to create,'" he explains. "They have to code the pieces and not invent the structure."

Danske Bank plans to add modeling tools from IBM's Rational Software unit by the end of the year to help the company automate some of its mapping efforts, Torp Jensen adds.

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Programmer's Toolbox

ALTHOUGH MANY SAY developers must embrace a new way of thinking as they embark on the road toward SOAs, there are tools that can help make the transition easier.

For example, Sabre's reuse advocates are working to steer developers to the Developer Resource Center, which is a registry of its Web services, components and other software assets based on technology from Cleveland-based Flashline Inc. Developers from Sabre subsidiary Travelocity.com LP and its airline and travel networks can tap more than 80 Web services that provide access to data like airline fulfillment and reservations content that's housed in legacy mainframe systems.

"Flashline allows us to tie this information together in a very user-friendly environment that developers can use to get services data – lists of what we offer and how to get support," says Brandon Steele, Sabre's lead business-systems analyst.

Blue Cross and Blue Shield of Massachusetts Inc. is using business process management tools from SeeBeyond Technology Corp. (which Sun Microsystems Inc. has announced plans to acquire), coupled with IBM's MQSeries messaging backbone to anchor its SOA, which includes Java and Web services for looking up claims and customer information.

Tools in SeeBeyond's Integrated Composite Application Network suite provide a graphical layout and flow designer, that lets developers generate composite applications with limited programming, says Stephen Edens, enterprise integration architect at the Boston-based health care provider.

The tools help developers transition from just focusing on requirements and use cases to looking at workflow, he adds.

"Each box represents a step in workflow or process. The idea of SOA is, don't prejudge that the box is going to be a request to IBM CICS or another back-end system," Edens says. "You're designing business processes first [while] looking at the rules and their requirements. You have to help developers to understand the blending of business process management and requirements management into traditional software engineering."

Fidelity Information Services Inc., a Jacksonville, Fla.-based company that provides processing and information services to financial and real estate companies, is using Oracle Corp.'s BPEL Process Manager to help it quickly develop business services like looking up customer information.

The tool also helps developers orchestrate business services – such as ensuring that transactions are made in the correct order – based on predefined business rules, says Amanda McIntyre, Fidelity's vice president of product management and business analysis.

– *Heather Havenstein*

MANAGING THE BUILDING BLOCKS

You could have hundreds of Web services. Read how SOA pioneers have learned to find, organize, catalog and reuse them.

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CHRISTOPHER BELSON

Global Workgroups

It takes both tools and processes for developers to collaborate long-distance.

By Drew Robb

IT'S GREAT BEING ABLE to draw upon your best programmers from throughout the world. SimSci-Esscor, the industrial process simulation and control unit of Invensys PLC, will assign personnel from any of its offices to assemble the right team.

"Our development projects operate in a virtual mode and [gather] people from multiple sites based on project needs," says Joe Ayers, director of development services at SimSci-Esscor in Lake Forest, Calif. "It is common for projects to utilize developers from three different time zones in a 'follow the sun' development mode."

The approach allows Invensys to find the right talent for the project, and work is done in an efficient way. But managing those far-flung developers can be a nightmare.

"Invensys had brought together multiple companies with different cultures and processes," Ayers explains. "Some of the issues we have had to address include duplication of source code, multiple tools and processes in use, and limited network connectivity and reliability."

To tackle these issues, Invensys created a virtual development infrastructure for 135 developers in five locations. To facilitate communication, it incorporated desktop-sharing tools, instant messaging, conference calling and voice-over-IP technology.

For working on the code itself, the company deployed three products from Telelogic AB in Malmo, Sweden: Synergy/CM for controlling project-configuration items, Synergy/Change for controlling change requests, and Synergy/Distributed CM for synchronizing change requests and source code between databases at multiple sites. It also implemented a wide-area file-sharing system from Availl Inc. in Andover, Mass., for other documents.

"With this development structure, we have the ability to add or remove changes to software builds at the last minute, with no project-delivery slips attributed to distributed development complexity over the last year," says Ayers. "We've been able to lower project start-up time and project costs."

Experts say managing distributed development teams requires a mix of processes and tools. "Rarely is it a problem with the technology, though that used to be a major hurdle in the past," says Dale Karolak, vice president of product development at Intier Automotive Inc. in Novi, Mich., and author of *Global Software Development: Managing Virtual Teams and Environments* (Wiley-IEEE Computer Society Press, 1998). "Most problems now are with communications, documentation and alignment." Intier is a subsidiary of Magna International Inc.

Karolak says managers need to exert more discipline when it comes to scheduling and bolding meetings and tracking project targets and spend more time visiting off-site locations for face-to-face meetings. Proper management also requires a greater awareness of potential problems.

"Jump on problems right away. Don't wait," Karolak says. "Longer distances will cause longer delays in solving the issues if they are not addressed quickly."

Karolak manages small teams of engineers who work on automotive electronic-control units. Each type of car from Intier's customers requires its own unit. Three to five engineers form a team, and there are about 40 teams in total. Karolak has implemented a software configuration management system to track changes and ensure that the right version goes into the finished product. He also has a product data management system for documentation.

Managerial Skills

For Olaf David, a computer scientist at the Department of Agriculture's Agricultural Research Service in Fort Collins, Colo., the problem was creating a system for developers who weren't under his administrative control. In addition to the USDA employees at several locations, university researchers do much of the development. That resulted in pockets of code around the country with shoddy version control and backup.

To improve the situation, David installed Intland GmbH's CodeBeamer collaborative and change management software, along with the open-source Subversion version management system.

One reason for choosing CodeBeamer was that it used Web pages for access, so data could pass through agency firewalls. After a successful pilot, 50 projects were loaded into the system, and another 80 are scheduled to be added.

Project managers use CodeBeamer to assign users access to the project code stored in Subversion without having to go through IT.

"I get a lot less e-mails now," says David. "But more than that, it gives us better project management control. We can track progress, assign tasks,

Continued on page 38

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Continued from page 36

see which tasks are open or closed and how many hours are left before a task is done."

In addition to the general communication and collaboration tools, there are others that address specific aspects of the development process. The exact mix will vary, depending on the needs of a particular organization, but here's a sampling of the options and how different companies are using them.

CODE REPOSITORY: HSBC Holdings PLC, a London-based banking group, has developers on five continents servicing offices in 77 countries and territories. It uses IBM's Lotus Notes and WebEx Communications Inc.'s WebEx for virtual meetings, and software configuration management tools and Flashline Inc.'s Flashline Registry to manage the code elements.

"The Flashline application resides on our intranet and allows any of our employees to find and use our custom software assets," says Jim Kasmer, reuse champion on HSBC's technical architecture team. With Flashline, the group can find documents within its configuration management tools and on other intranet sites.

APPLICATION SIMULATION: Human resources and capital management consulting firm Watson Wyatt LLP has 50 developers at its headquarters in Reigate, U.K., and others at its branch offices in 32 countries. The problem it faced wasn't creating the software, but getting agreement on the needs of users around the world. To speed the process, the company uses iRise Inc.'s application simulation software to model different versions of proposed interfaces without having to actually work with the source code. Users can then access them via a Web browser.

Melvin Brandman, Watson Wyatt's head of IT, says the software has helped the company eliminate ambiguity in the design stage, speed development and reduce the amount of rework. It also helped when the company farmed out a job to an outsourcer.

"With one of our projects, we have been able to engage an external supplier to produce a system for us, having given them a functional model of the interface," he says. "We can now have a high degree of confidence that there will be no big surprises when we get to see the real system for the first time."

DEFECT TRACKING: The bulk of Verizon Communications Inc.'s developers for its SuperPages.com site are in Coppell, Texas, but a quarter of them are near Boston. They use Microsoft Corp.'s Project Server 2003 for product management and Quest Software Inc.'s Stat ACM for change management on the PeopleSoft CRM suite. Seapine Software Inc.'s TestTrack Pro is used by approximately 100 developers to keep track of any defects and manage change requests; another 400 employees can submit bugs or change requests through the system.

"Trying to keep everyone in the loop using e-mail was cumbersome, and inevitably someone would be left out," says capacity planner Roy Minney. "With TestTrack Pro, we are able to highly customize the workflow routing criteria and automatically notify the appropriate parties." TestTrack Pro links into Stat ACM for deployment of the new code when ready.

PROBLEM REPLICATION: IT services firm CGI Group Inc. in Montreal assigns 700 of its 25,000 employees to support one of Canada's largest telecommunications providers. The staff is located primarily in Toronto, Ottawa and Montreal, and sometimes developers from CGI's offices in India are brought in.

When there's a problem, appropriate specialists from the different offices are assembled into an ad hoc team for rapid resolution. To ensure that they are all looking at the same version of the question at hand, they use Identify Software Ltd.'s AppSight, which records what's happening with a database, application and the user in a buffer. When there's a problem, it dumps the data into a log file for analysis.

"Before, we had environmental or operational or 'lost in translation' issues when trying to re-create a problem, and a lot of time was wasted," says David O'Leary, director of CGI's Center for Testing and Quality. Now, all members of the team, no matter where they are, can look at the same set of data, replay it, drill down into the exact user keystrokes and lines of code running at that time, and work out a fix.

LICENSE COMPLIANCE MANAGEMENT: Mixing open-source and proprietary code in a product puts a company at legal risk. "Programmers are always looking for ways to not write code and instead use what already exists, so they all look at open-source repositories whenever possible," says Jothy Rosenberg, chief technology officer at Service Integrity Inc., a management software vendor in Lexington, Mass. "They are pretty careful, but it's not easy to be sure if the license on that particular module is clean."

Microsoft indemnifies its customers against challenges to its software, and other companies sell insurance to protect users against lawsuits. Rosenberg uses instant messaging, phone calls and e-mail to manage his developers, Perforce SCM from Perforce Software Inc. to control the source code, and ProtexIP from Black Duck Software Inc. to verify that code is clean.

"With the litigation going on, this is becoming essential," he says. "Our venture capitalists now require that we indemnify them that we do not have any open-source license violations, and the bigger the company, the more critical this becomes."

Erran Carmel, a professor at American University in Washington and author of *Global Software Teams* (Prentice Hall, 1998) and *Offshoring Information Technology* (Cambridge University Press, 2005), has been following the collaboration tools market for the past decade and says they are key to the boom in global development.

"We wouldn't be seeing this world of global collaboration without these tools, the Internet and very low-cost phone calls," he says. The tools are much better than what was available five or 10 years ago, Carmel says, but they won't solve the problems of a dysfunctional organization.

"It is not just the tool itself but the whole organizational layer around the tool," Carmel says. "It is how well the tool is used, how religiously everybody is updating the information, clicking all the boxes and making sure everything is linked properly."

One barrier to widespread use is a tool that's too complex. Karolak says collaboration tools need not be exotic. Much of the job can be done with readily available IM, Web and videoconferencing technology, e-mail and phone calls. But if you do select a dedicated distributed development tool, don't go overboard on the features, Karolak says.

"The most easily accessible and easily used ones will be used more often and be more effective," he says. "Simplicity rules." **QuickLink 55458**

Open-Source Lessons

"OPEN-SOURCE DEVELOPMENT is having a huge impact on corporate IT because it has been successful," says Liz Barnett, vice president of Forrester Research Inc.

But a great deal of that success has been accidental. Former Linux server vendor VA Linux, now VA Software Corp. in Fremont, Calif., needed to boost its hardware sales and decided to try a different approach.

"As we tried to expand our business, the challenge was that we didn't have a large portfolio of third-party applications," says VA Chief Technology Officer Clint Bodell. "Instead of trying to build or buy third-party applications, because of our affinity with the open-source community, we said, 'Why not try to encourage them by providing the technology to bring them along?' " Out of that decision came the SourceForge.net site.

"We didn't know what a phenomenon it would be," Bodell adds. "We figured we would put a few projects on there and hoped they would do well. It took off like a rocket."

On May 17, the site passed the 100,000-project mark and had more than 1 million registered users. While this model was extremely successful for open-source projects, it wasn't designed for developing proprietary code. Bodell says three companies – Hewlett-Packard Co., Goldman Sachs & Co. and Agilent Technologies Inc. – independently approached VA to obtain a copy of the SourceForge software to run behind their firewalls.

Out of this came VA's SourceForge Enterprise Edition, which runs on a different set of code than the SourceForge.net site but uses a similar approach to collaboration. It does, however, have greater security, confidentiality and better integration with other development tools. Users can choose between a Web or Windows interface.

– Drew Robb

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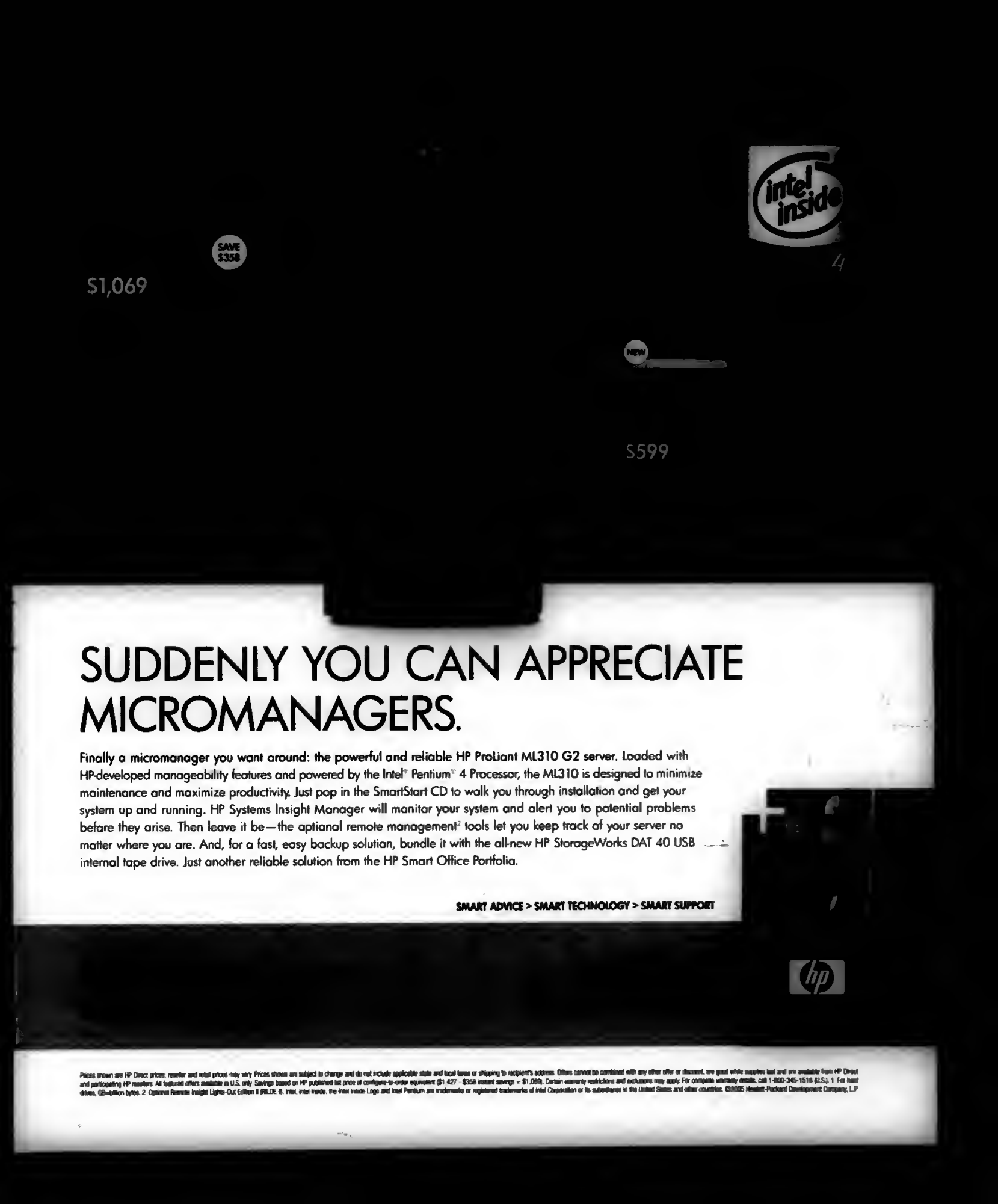
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CHRISTOPHER WILSON

Multiple Taskmasters

With an array of users and auditors tugging at them, developers are feeling the strain. By Thomas Hoffman

THESE DAYS, corporate programmers are being pulled in different directions by business sponsors, IT executives and quality assurance managers, as well as internal and external auditors and regulators.

"There's a constant drumbeat from the business to deliver new features and capability into the field," says David Moore, director of North American branch operations services at Boston-based Keane Inc. Then there are demands from internal quality-assurance groups for adequate testing and inspections. Throw in the Sarbanes-Oxley Act and other regulatory requirements, and "all of these forces converge on the development team," adds Moore.

Developers also have to sharpen their understanding of business requirements while they're under the gun to create new systems faster, notes Jack Duggal, a principal at Projectize Group, a Simsbury, Conn.-based project management consulting firm. "There's definitely a lot of pressure on them."

To help deflate that pressure, some IT organizations are positioning their project management offices as buffers between developers and other constituents. At American Cancer Society Inc., the PMO acts as a liaison between business managers and developers "so that they're not being bombarded with phone calls," says Tom Nodar, PMO manager for corporate IT at the Atlanta-based voluntary health organization.

A similar method is employed at Cardinal Health Inc. "We try to use project managers to insulate developers from status reporting and all of the day-to-day business pressures," says Dave Hammond, vice president of enterprise architecture at the $65 billioo health care products provider in Dublin, Ohio.

Cardinal's IT group has taken other steps to help insulate developers. For example, it's putting together teams of programmers and applying agile project management methodologies instead of waterfall development methodologies when there's a good fit for the people involved and the projects being worked on, says Hammond.

"What we want to do is try to put developers back in the driver's seat as much as we can," he says.

Other organizations, such as ING Americas, simply have project managers act as middlemen between developers and business sponsors. But sometimes even those steps, along with the use of structured project management methodologies, go only so far toward shielding developers from other demands.

"IT management has taken sufficient steps to address these issues, but developers will always feel like they're being pulled in different directions," says Joe Muller, chief information architect at ING Americas, a financial services provider in Hartford, Conn., that employs 1,000 in-house and contract developers. That's partly the result of increased security and Sarbanes-Oxley-related requirements being imposed on all development efforts, says Muller.

Establishing Structure

Like other IT organizations, Arizona Public Service Co. uses a structured project management methodology that lends discipline to how each IT project gets staffed and funded, says Brian Moore, an information systems account manager at the Phoenix-based utility. Within that is a structured application development methodology that allows the utility's 80 in-house developers to choose

The Buffer Zone

SCHNEIDER NATIONAL INC. might be a transportation carrier, but from a development standpoint, it acts more like a software vendor.

For instance, the Green Bay, Wis.-based company schedules new software deployments about three times a year, says Bob Grawien, vice president of application development. In addition, Schneider National schedules maintenance releases between each of those deployment phases.

To help insulate its 500 full-time and contract developers, the company has established a 10-person product management team that operates separately from the application development group and serves as the primary interface with business sponsors on setting project requirements.

"What they focus on is the 'what' versus the 'how' of what we're going to do," says Grawien. So after working with business sponsors to develop broad systems requirements, the product team then works with developers to establish what they need to do.

The approach has brought a great deal of discipline to Schneider National's project efforts while keeping developers focused on their roles.

"Five years ago, it wasn't uncommon for a business sponsor to call a developer and ask for a favorite enhancement," says Grawien. "We've all but eliminated that."

– *Thomas Hoffman*

how they design a system, as long as it's compatible with the utility's application development architecture, says Moore. "I found our programmers like having the structure, since it leads to the continuity of the systems we have in place," he says.

A structured project management methodology launched by HVB America Inc. early last year has provided the bank with clear segregation of project management responsibilities, says David Dart, managing director and CIO at the New York division of HVB Group, a Munich-based financial services firm.

Using this framework, HVB's developers have to focus only on project specifications, "and they don't have to feel like they're being blindsided" with other requirements, such as user-acceptance testing, Dart adds.

Idaho Power Co. implemented an application system life-cycle methodology last October. The methodology has helped ease the amount of documentation that developers have to contend with as a result of regulatory compliance and its own quality assurance requirements, says Paul Schinke, technology asset manager at the Boise-based utility.

The development methodology has helped Idaho Power, since it previously had to increase the amount of documentation associated with its application development efforts, such as signed test reports, to help it improve the quality and scope of its IT projects, says Schinke. "Even though there's a little extra time spent on documentation, there are improvements in the project timelines," he adds.

But the additional discipline that software development life-cycle methodologies entail poses a catch-22 for developers. "Some degree of discipline is necessary, but not to the point of being rigid" about processes, says Projectize Group's Duggal.

Others believe the additional structure benefits developers. "Programmers are very logical. They like a very clear, logical structure of when to do what," notes David Myers, director of project management at Solo Cup Co. in Highland Park, Ill.

Schinke says some of Idaho Power's developers have resisted the bureaucracy that comes along with a structured project management methodology. "It's a double-edged sword: As a developer, you're adding more documentation to my workload and taking away from my code development time, but they find the structure helpful," he says.

Idaho Power has an initiative under way to streamline the amount of documentation that developers will have to contend with, says Schinke. The new processes are expected to be in place by early 2006, he says.

Time Trade-off

Increased security, regulatory compliance and quality assurance requirements are all causing IT projects to run 15% to 20% longer than they did two or three years ago, several IT managers say. Just where that extra time ends up in a project life cycle varies from one organization to the next.

For instance, documenting IT controls to meet Sarbanes-Oxley requirements has led to longer systems testing and deployment phases at Cardinal Health, says Hammond.

In turn, that has led to some frustration among business sponsors, because the Sarbanes-Oxley compliance work needed for Cardinal's accounts management system "had a trickle-down effect on other projects getting serialized by SOX," says Hammond.

At Idaho Power, regulatory and quality assurance requirements extend the front end of projects by adding more-detailed project definitions, says Schinke. "But overall, it makes the projects go better, since we're giving the customer a more fixed schedule and we're not overpromising on what we'll deliver," he says.

Communicating these additional requirements to the business can also be tricky. "If you shirk on testing or quality assurance to shorten development cycles, the project is going to be at risk," says the American Cancer Society's Nodar. "So when you're communicating this to the project sponsor, if they want it done faster, then we tell them, 'These are the risks that are associated with it.' "

At Solo Cup, business sponsors want to know when developers are actively writing code, says Myers. "But in terms of our time, that may only be the second half of the project," he says. "The first 35% to 40% of the [project duration] might be spent before any code is written."

Besides steps that IT managers can take to insulate developers, there are plenty of things that developers can do to protect their own interests. "Developers tend to learn from tribal knowledge and what trade-offs they can make," says Keane's Moore. "And they quickly learn how to deal with that pressure, partly by cutting corners on documentation and rigorous unit testing and other things that are outliers in the core development process." 55080

Joseph Gwozdz,

PROGRAMMER/ANALYST
HANNAFORD BROTHERS CO.

It's been about eight months since Joseph Gwozdz gave up his small IT consulting business and joined Scarborough, Maine-based grocer Hannaford Brothers Co. as a programmer/analyst. But he continues to rely on the consultants with whom he forged friendships to help him cope with day-to-day pressures.

"We talk about ways of doing more with less," says Gwozdz. "It's making it easier for me to survive in an environment where there's always more to do."

As part of his new role, Gwozdz has been asked by Hannaford CIO Bill Hogg to modify a software development life-cycle (SDLC) methodology inherited from Food Lion, one of Hannaford's sister companies, and apply that to its Sarbanes-Oxley compliance efforts. The work includes examining the impact that even a $50,000 upgrade to an accounting system might have on Hannaford's adherence to the federal regulations.

Once the company implements a modified set of SDLC processes by October, it will select software tools to help automate project workflows and other development components, says Gwozdz.

– *Thomas Hoffman*

PROTECTING PROGRAMMERS

BAKED-IN SECURITY

It's a problem at many organizations today: Developers are so narrowly focused on quickly building feature-rich applications that security becomes an afterthought.

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Big Business

70% of large enterprises say they are using service-oriented architectures now.

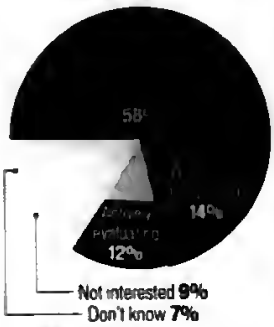
29% have an enterprise-level commitment to an SOA.

19% say they are using an SOA for strategic business transformation.

BASE: 116 North American companies
SOURCE: Forrester Research Inc. Cambridge, Mass. April 2005

Snowball Effect

Is your organization developing Web services?



BASE: 966 respondents to an online survey
SOURCE: *Computerworld.com*, December 2004

Dealing With Deficits

What are the biggest hurdles you face in implementing Web services?

1. Lack of skilled development resources
2. Creating an interface to legacy code
3. Changing standards/ lack of standards
4. Security shortfalls
5. Lack of corporate priority

BASE: Survey of 400-plus developers
SOURCE: Evans Data Corp., Santa Cruz, Calif., June 2005

MARK HALL

A Soft Touch

I WAS HAVING DINNER LAST MONTH IN SAN FRANCISCO with an IT manager at a midsize law firm in the area. He was telling tales about his IT chief.

"His style is unbelievable," the IT manager told me. "He yells or mocks you if you're not doing exactly what he wants you to do. He screams, 'You're not asking questions the right way. You're not thinking the right way. You have to change the way you're thinking.' "

The fellow looked at me across the table, cursed his boss, then said, "Change my thinking? I wouldn't change my socks for that guy."

Stinky feet aside, my dinner companion's comments bring to mind how management style — what some people call the "soft skills" of running an IT shop — is critical when you want to impose a sea change in the way work gets done. And in IT these days, the biggest change is happening in application development with the arrival of reusable Web services.

As Heather Havenstein reports on page 34, IT managers are challenged to get programmers to revise their attitudes about writing application code. I think the foot-dragging among programmers stems from two intangible forces. The first is the pleasure developers derive from their work. The second is a long-held cynicism about the long-term success of software interoperability standards.

Are We Having Fun Yet?

People who write code simply like the process of creating software. It's challenging and personally rewarding. That's why you get top executives like Microsoft's Bill Gates and SAS Institute's CEO, Jim Goodnight, who still can't resist the fun of unraveling the complexity of a tough programming problem and continue to write code for their respective companies' commercial products. There's something wonderfully gratifying about doing it right. And it's difficult for people like this to give up the control of building an application from scratch.

Also, Web services isn't the first effort to bring code reuse to the world of developers. Those past experiences make many developers suspicious about the prospects for success this time around. They remember the failed promise of object-oriented programming in the 1980s. Back then, the goal was to create a bunch of objects in C++ or Smalltalk and toss them together with standard middleware to create applications. More than 20 years later, we're doing the same thing, although instead of calling the bits of code "objects" we now call them "services."

Back in the heyday of object-oriented programming, Microsoft gummed up the middleware works, zigging and zagging across the software development landscape and tossing around "standards" such as COM, DCOM and COM+ to combat broader industry initiatives like CORBA. In those days, Microsoft's strategy and its power in the market undermined the standards effort to create a middleware glue to make object-oriented programming practical for most companies. Microsoft's success was the industry's failure.

This time, though, it's different. This time, Microsoft is on board with the reusable software movement we call Web services. But I suspect there are more than a few cynics (I'm sure they call themselves realists) who believe Microsoft has built a "gotcha" into the whole Web services effort with its .Net agenda. They fear another waste of effort once that gotcha is exposed.

Overcoming the pleasure developers get by programming applications from scratch, and healing the scars of the Microsoft vs. CORBA days, is a tough job for IT managers. But it's an essential one. The benefits of creating a service-oriented architecture are too great to ignore. Lower-cost apps that are deployed more quickly could help you gain a competitive advantage if you do SOA right.

Doing it right means convincing your developers that their careers are enhanced when they apply SOA thinking to their day-to-day work. Helping to alter their tried-and-true ways of thinking about building software isn't going to be easy. But it's essential.

To help steer this change, you'll need a softer touch than the one my dinner companion's boss uses. You need to be persuasive. Meet with members of your application development team to discuss the benefits of SOA. Don't criticize their current or "old" way of doing work; simply explain the advantages of SOA to them. Tell them how the SOA style can raise the profile of the IT department and enhance their careers. Explain to the cynics that this time, Microsoft can't beat back the SOA movement.

Do it calmly, consistently and enthusiastically, and you will win them over. **55602**

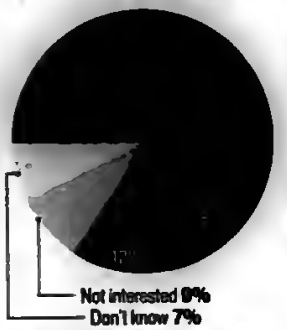
SNAPSHOTS

Big Business

BASE: 116 North American companies
SOURCE: Forrester Research Inc., Cambridge, Mass., April 2005

Snowball Effect

Is your organization developing Web services?



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IT Careers: Diversity Efforts Focus on Respect

As the 27th annual National Black Data Processing Associates Conference gets underway this week in Detroit, corporate America is showing signs of maturing in terms of its views of Diversity.

Two to three decades ago, forward-thinking businesses were providing training and development programs designed to create understanding among races, primarily among African-American and Caucasian employees. Today's corporations are focused on demanding respect for individuals who may differ in ethnicity, but also in background, age, education and culture, regardless of race. This year's BDPA Conference reflects the shift with a theme of "Driving Innovation, Bringing Value and Embracing Change" – a theme fit for any individual. The conference offers career coaching and a programming contest that allows IT professionals to flex their expertise on new Java tools developed by Compuware.

Pat Smith, Vice President of Information Technology at MasterCard, was on the company's first Diversity Council almost a decade ago. "It was great to be a pioneer," she says. "Ten years ago we talked about gender or race when we talked diversity. The focus now is on cultural and ethnic backgrounds. Here at MasterCard we have people who may look the same as an east coast Anglo but whose backgrounds bring a completely different view and perspective. The makeup of our (diverse) quilt, if you will, is no longer just visually diverse."

It's an important and strategic difference for MasterCard, which operates worldwide and moves employees throughout that network on a proactive basis. "During my time with MasterCard, I've had the opportunity to live in Canada and manage a global team. The global team spoke 15 different languages. Currently, I manage a team of people who speak eight languages," says Smith, whose organization creates the systems used to operate MasterCard's financial services (the back office), says she is particularly focused on hiring as part of her diversity efforts. "We need to make sure people coming through our door are those who have respect for others who look, think, and act in ways that are different from their own."

It's an imperative coupled with Smith's challenge to be first-to-market with innovation that helps MasterCard attract and retain customers. "What we're finding with that pressure to stay ahead is that we need research and development, the ability to ramp up and down on projects. We need people who can make this happen."

MasterCard has more than 2,000 information technology professionals, or about half the employee base. Some work on innovation of new products, such as PayPass (a no swipe, sensor-based credit card), while others work with Smith on enabling those technologies through ever-faster financial applications.

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Produced by Carole R. Hedden

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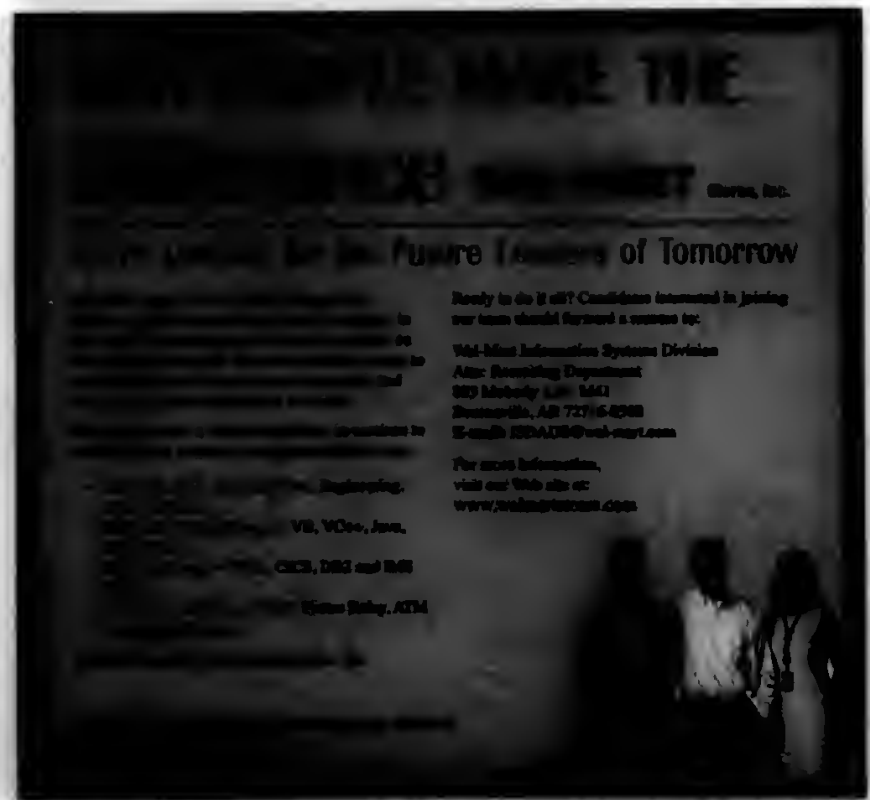

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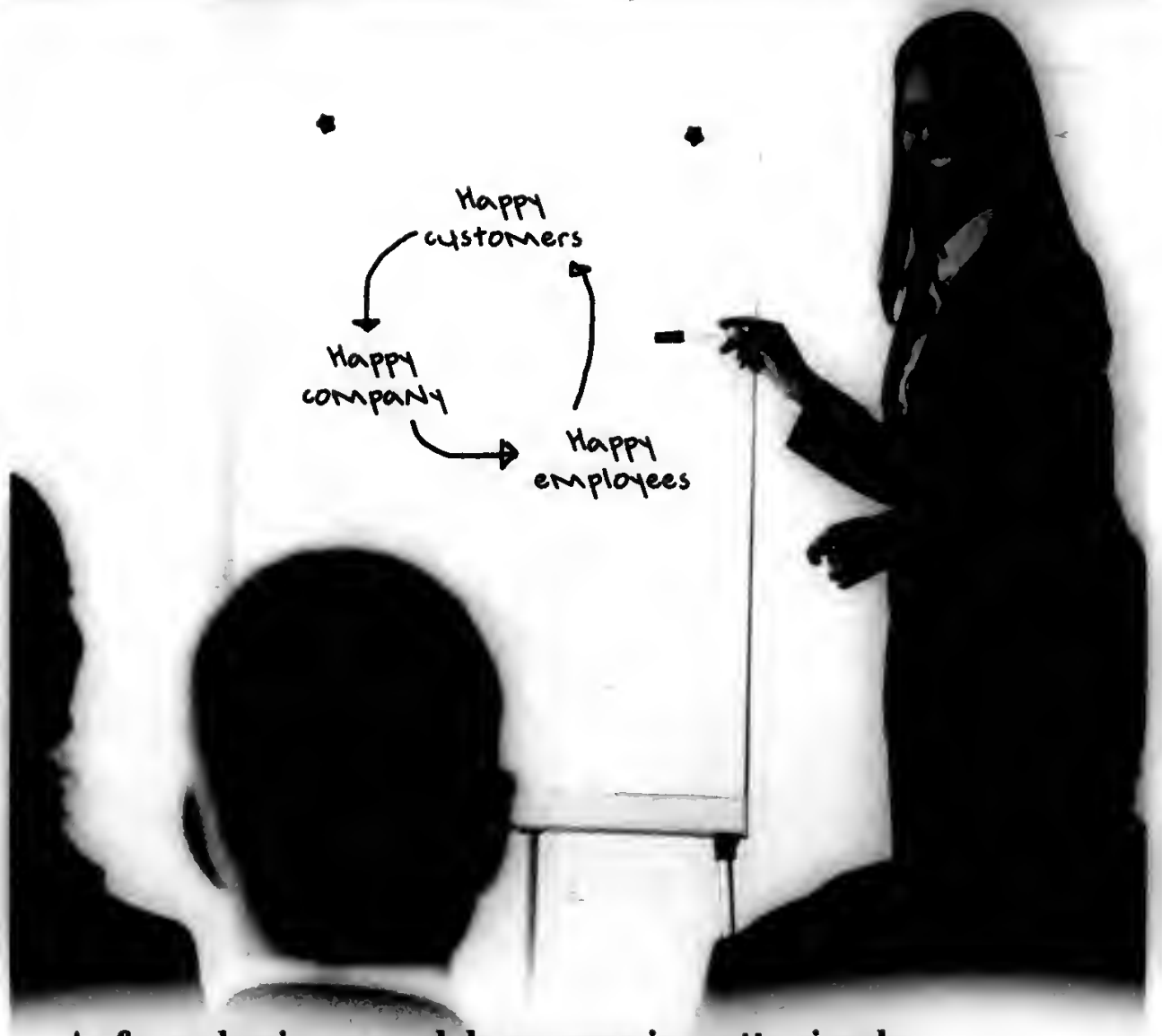

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Mainframes

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Weighing heavily in support of the mainframe was its track record: There hadn't been any mainframe downtime since 1997, said Shackelford. The ERP applications run the business, manufacturing, finance, sales, distribution and Web applications, among others. "We have a very stringent requirement of being up all the time," he said.

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Welch's decision to adopt the Intel platform with Oracle and a virtualized environment using VMware was heavily influenced by the vendor's recommendation, as well as Oracle's example of running on a Linux and Intel environment itself, said Rencken.

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Jacob Matusevich, Welch's manager of networks and server technologies, said there's no significant difference in uptime between the Intel and IBM environments.

Rencken has an IT staff of 50, but that includes what he described as a short-term increase, because he is still supporting two environments. The migration project will continue into 2007. He put IT spending at about 2.5% of revenue, but that reflects the transition costs and expansion of Oracle-based applications to replace paper-based processes with automated ones.

Charles King, an analyst at Pund-IT in Hayward, Calif., wasn't surprised by the difference in approach taken by the two companies. "I think from a customer standpoint, the world is much more made up of shades of gray, and at the end of the day, each customer is a unique case." **56159**

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ability Council, said Ellen Vancko, a spokeswoman for the organization. The NERC is a Princeton, N.J.-based voluntary organization that sets standards for the operation and planning of the nation's bulk electricity system.

A spokeswoman for the FERC was unable to confirm the agency's plans last week.

The NERC is developing cybersecurity standards [QuickLink 54536] that cover areas ranging from the security of critical cyber assets to personnel screening and training requirements. The standards, known as CIP-002 to CIP-009, have been in the works for the past two years.

Executives from electric utilities and independent system operators (ISO), which oversee regional power grids, recently submitted comments on the third draft of the cybersecurity standards, said Laurence W. Brown, director of legal affairs at the retail energy services division of Edison Electric Institute Inc. in Washington. Brown said a fourth draft of the standards is expected to be voted on this fall.

If the standards are approved by NERC members and the group's board, they will likely go into effect next spring, said Brown. That should give power companies enough time to craft budgets that address the new requirements and create a list of physical and cyber assets that will be audited by the new reliability organization being established by the FERC, he said.

Listing Assets

The biggest challenge for power companies in meeting the upcoming standards, said Brown, is the creation of a list of physical and cyber assets that need to be audited each year.

"The most difficult issue is being able to demonstrate that you have looked at all of the areas that need to be tested and [are] doing the work necessary," said Brown.

For instance, Southern Co. identified its critical assets after the 9/11 terrorist attacks in the U.S., but it will now have to put together a different list to address cyber assets, said Bob Canada, a business assurance principal at the Atlanta-based super-regional power company.

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While there may be some overlap with its post-9/11 asset management efforts, the new requirements will demand "a significant effort" to implement effective security controls for some of Southern's facilities, he said. For example, the company might need to restrict workers' access to portions of a computer console or an area of a power plant to ensure that those employees' actions are authorized, he said.

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PJM Interconnection LLC, an ISO that serves 51 million electric customers from North Carolina to New Jersey, has been tracking its cyber assets since March 2004 in compliance with 1200, the previous cybersecurity standard, said Tom Bowe, chief security officer at the Valley Forge, Pa.-based company. "I don't want to bait anyone, but I do feel confident in our level of security," said Bowe. Still, he added, "day to day, that confidence can ebb and flow with the latest threat that's been published."

Midwest Independent Transmission System Operator Inc. in Carmel, Ind., already identifies and monitors its cyber assets through an SAS 70 audit, said Jim Schinski, vice president and CIO at the nonprofit organization, which serves the electrical transmission needs of much of the Midwest.

The regional grid operator has hired third parties to try to hack into its systems twice during the past two years, said Schinski. "We came out of the report in very good shape," Schinski said, declining to discuss the vulnerabilities that had to be corrected. **56178**

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FRANK HAYES ■ FRANKLY SPEAKING

Messy Training

HOW DO YOU TRAIN USERS? No, that's not an abstract question. How do *you* train users? There are two basic approaches. In the first, you start by showing the users all the features of the new system and then eventually demonstrate how they can do the specific things they'll need to get real work done.

The second way is to start by showing users how to do their work with the new system and only later point out the rest of the features that are available somewhere in the software.

Or to put it another way: You can focus on *your* work, or you can focus on *their* work. Which approach will work better?

You know the answer. Showing off features is fun for IT people. But hearing about features is mostly useless to users unless it's in a context. That context doesn't exist until users have walked through the standard processes they'll be using this software for. Until they've tried it, they can't really make sense of those features, no matter how great they are.

So why do we keep training users the wrong way? Sure, we're proud of our work. We like focusing on that. But IT people are also orderly. We like having an agenda for training and covering everything on that agenda.

We know that if we start with a lecture on features — say, by showing users every item on every drop-down menu and explaining what each one does — and enforce a hold-all-questions-until-the-end policy, we'll stay on schedule. We'll frog-march users through the feature list, but we'll fit it all in.

And we'll waste that first hour or so of the users' time. After all, they won't remember any of that stuff. We'll just end up explaining it again on the help desk — one call at a time.

But what happens if you begin by walking users through a typical transaction — or better still, by letting them walk you through a transaction? Then your orderly agenda rapidly dissolves into chaos. Some users will figure out the system immediately. Others won't and, because you can't afford one trainer per user, they'll do what users do — turn to other users for help.

Meanwhile, a different group of users will start experimenting, looking for ways to use the new system to do the things the old system did.

They'll get confused. They'll ask questions you never thought of. Things that aren't configured quite correctly will quickly surface. Every misunderstanding that you had about the users' work, and that they had about your instructions, will become apparent.

Sounds like a mess, doesn't it? But it's exactly the mess you need.

Because that's your opportunity to answer those questions and clear up those confusions — in a consistent way for all the users.

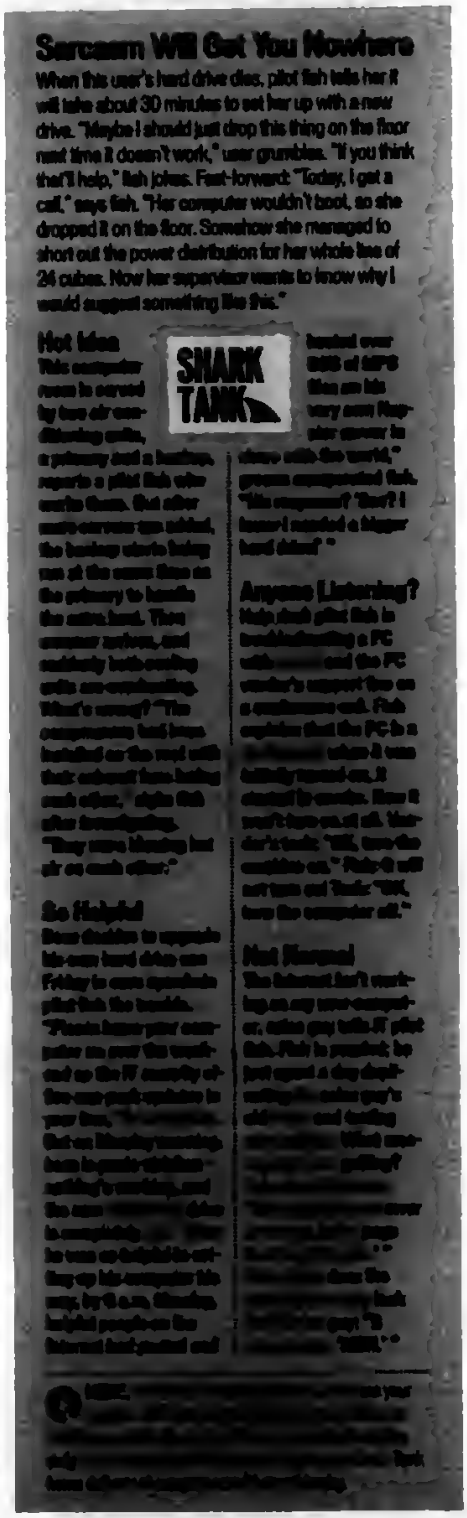
It's also your chance to let users design a cheat sheet for the system, right there on the whiteboard with you. From that, users will get the most useful quick-reference documentation possible. And IT will get the real story on what users actually do with the software's features — what works well, what's kludgy, what needs fixing fast, what can be left for later.

And you'll be able to see who the ringleaders are among your users, the experimenters, the ones who fear any change and the ones who just aren't very quick. Keep track. Take notes. You'll learn who your best friends and worst problem children will be.

This kind of training won't be orderly or tidy. You won't get through your whole agenda. In fact, you'll likely send those newly trained users out wondering about all those features you didn't have time to talk about and whether those features will really be useful in doing the work.

In other words, they'll end up focused on both their work *and* your work.

And isn't that the kind of training you wanted anyway? 56137


Sarcasm Will Get You Nowhere
When this user's hard drive dies, pilot fish tells her it will take about 30 minutes to set her up with a new drive. "Maybe I should just drop this thing on the floor next time it doesn't work," user grumbles. "If you think that'll help," fish jokes. Fast-forward: "Today, I got a call," says fish. "Her computer wouldn't boot, so she dropped it on the floor. Somehow she managed to short out the power distribution for her whole line of 24 cubes. Now her supervisor wants to know why I would suggest something like this."
Hot Idea
SHARK TANK
Anyone Listening?
So Helpful
Not Normal

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Summit Agenda

8:00am – 8:30am	Registration and Networking Breakfast
8:30am – 8:40am	**Welcome and Opening Remarks** Julia King, Executive Editor and National Correspondent, Computerworld
8:40am – 9:15am	**Numbers Don't Lie: Benchmarking Data Proves That Reducing IT Complexity Cuts Costs Across Other Business Functions** Allan Frank, President & Chief Technology Officer, Answerthink, Inc. and Senior Hackett IT Fellow
9:15am – 9:45am	**Project Virtual Gateway: Streamlining Health Services Delivery in Massachusetts** Louis Gutierrez, Chief Technology Strategist, Commonwealth Medicine, University of Massachusetts Medical School
9:45am – 10:15am	**Update: State Street's Infrastructure Efficiency Program** Madge Meyer, Executive Vice President, Global Infrastructure Services, State Street Corporation
10:15am – 10:45am	Networking Break
10:45am – 11:15am	**Negotiating Services-Oriented Contracts** Dan Demeter, Chief Information Officer, and Senior Vice President, Korn/Ferry International
11:15am – 11:45am	**Virtual Enterprises and Simplification** Damien Bean, Co-founder, CareerCurrency LLC and former Chief Information Officer, Hilton Hotels
11:45am – 12:30pm	**Panel Discussion: Reducing IT Complexity** Moderator: Don Tennant, Editor in Chief, Computerworld Panelists: Damien Bean, Co-founder, CareerCurrency LLC and former Chief Information Officer, Hilton Hotels; Dan Demeter, Chief Information Officer, and Senior Vice President, Korn/Ferry International; Allan Frank, President & Chief Technology Officer, Answerthink, Inc. and Senior Hackett IT Fellow; Louis Gutierrez, Chief Technology Strategist, Commonwealth Medicine, University of Massachusetts Medical School; Madge Meyer, EVP, Infrastructure Services, State Street Corporation
12:30pm – 2:00pm	**Networking Lunch**
2:00pm	Program Concludes

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